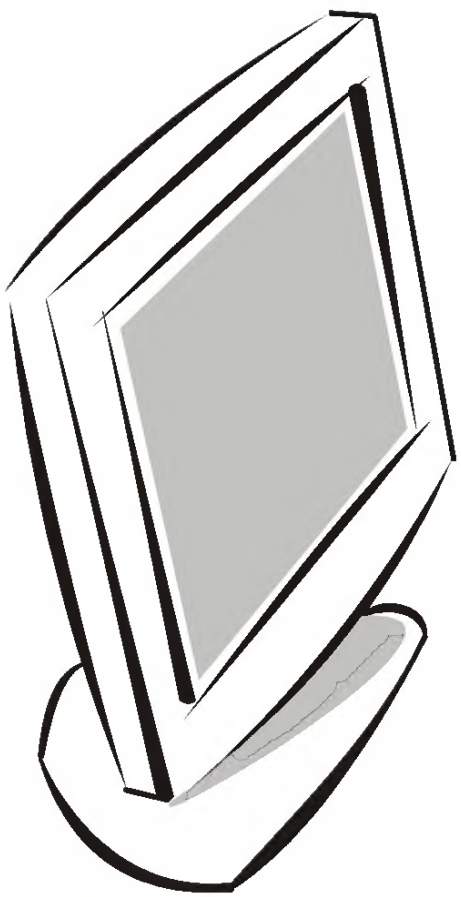
SERVICE MANUAL

SPECTRUM Series

LCD Monitor

AL801



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1. SPECIFICATIONS FOR LCD MONITOR

1-1 General specifications

1. LCD-PANEL :

Active display area	18 inches diagonal
Pixel pitch	0.279 mm x 0.279 mm
Pixel format	1280 x 1024 RGB vertical stripe arrangement

2. Display Color :
   8-bit, 16.7 million colors

3. ●External Controls :
   Power On/Off, Auto key, Left key, Right key (for 4-key)
   ●OSD menu Controls
   Contrast, Brightness, Focus, Clock,H-position, V-position, Language, Recall-C1, Recall-C2, Reset, Exit-osd, Red, Green, Blue, Selected Dos-resolution

4. Input Video Signal :
   Analog-signal 0.7Vpp
   Video signal termination impedance 75 OHM

5. Scanning Frequencies :

Horizontal:	30 KHz - 80 KHz
Vertical:	55 Hz – 75 Hz
Pixel clock:	135 MHz

6. Factory Preset Timing : 18
   User Timings : 19
   Input signal tolerance : H tolerance ±1 K, V tolerance ±1 Hz

7. Power Source :
   Switching Mode Power Supply
   AC 100 – 240 V, 50/60 Hz Universal Type

8. Operating Temperature : 0℃ - 50℃ Ambient
   Non-operating Temperature : -20℃ - 60℃

9. Humidity :
   Operating : 20% to 80% RH (non-condensing)
   Non Operating : 5% to 95%RH (38.7℃ maximum wet bulb temperature)

10. Weight :
    6.7 kg
11. External Connection : 15Pin D-type Connector, AC power-Cord

12. View Angle : x-axis right/left = 60, y-axis up/down = 40 ,60

13. Outside dimension : Width x Height x Thickness = 422x 449 x 215 mm

14. Plug and Play : VESA DDC2/DDC2B

15. Power saving : VESA DPMS

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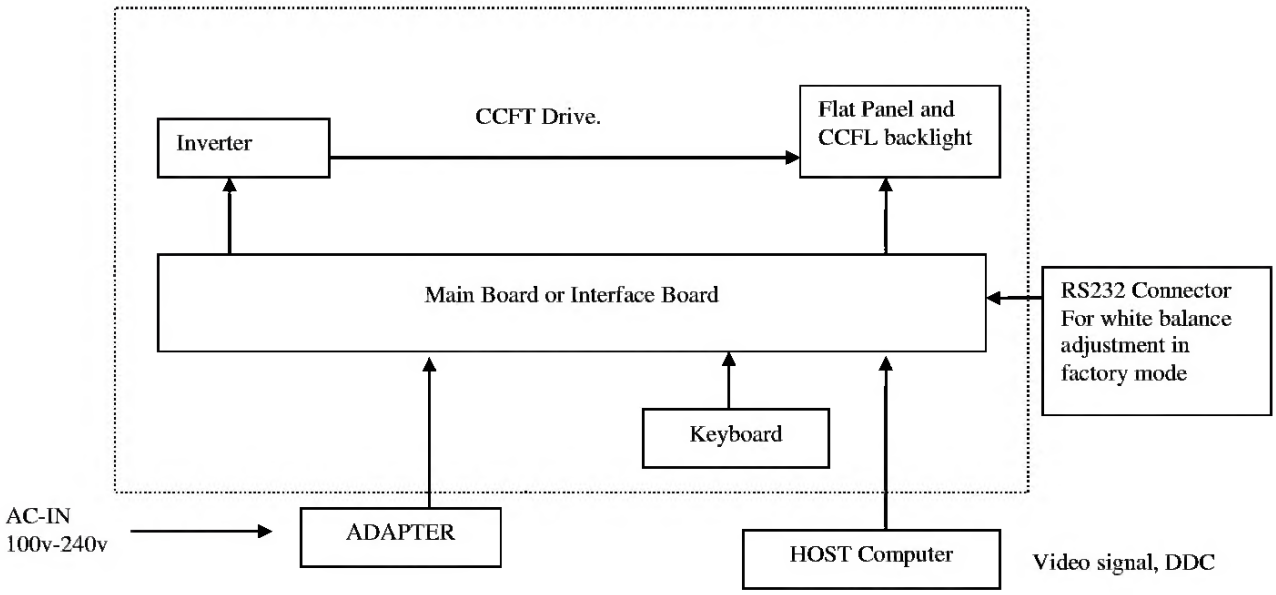
1-2 LCD MONITOR DESCRIPTION

The LCD MONITOR will contain an main board, an Inverter module, keyboard, External Adapter which bouse the flat panel control logic, brightness control logic, DDC and DC-DC conversion
The Inverter module will drive the backlight of panel .
The Adapter will provides the 12V DC-power 4.16 Amp to Main-board,and Inverter module .

Monitor Block Diagram



1-3 Interface Connectors

(A) AC-Power Cable
(B) Video Signal Connectors and Cable
(C) External Adapter

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2. PRECAUTIONS AND NOTICES

2-1 ASSEMBLY PRECAUTION

(1) Please do not press or scratcb LCD panel surface with anything hard. And do not soil LCD panel surface by touching with bare hands (Polarizer film, surface of LCD panel is easy to be flawed)
In the LCD panel, the gap between two glass plates is kept perfectly even to maintain display characteristic and reliability. If this panel is subject to hard pressing, the following occurs :
(a) Uniform color (b) Orientation of liquid crystal becomes disorder
(2) Please wipe out LCD panel surface with absorbent cotton or soft cloth in case of it being soiled.
(3) Please wipe out drops of adhesive like saliva and water in LCD panel surface immediately.
They might damage to cause panel surface variation and color change.
(4) Do not apply any strong mechanical shock to the LCD panel.

2-2 OPERATING PRECAUTIONS

(1) Please be sure to unplug the power cord before remove the back-cover. (be sure the power is turn-off)
(2) Please do not change variable resistance settings in MAIN-BOARD, they are adjusted to the most suitable value. If they are changed, it might happen LUMINANCE does not satisfy the white balance spec.
(3) Please consider that LCD backlight takes longer time to become stable of radiation characteristic in low temperature than in room temperature.
(4) Please pay attention to displaying the same pattern for very long-time. Image might stick on LCD.

2-3 STORAGE PRECAUTIONS

(1) When you store LCD for a long time, it is recommended to keep the temperature between 5℃-40℃ without the exposure of sunlight and to keep the humidity less than 85% RH.
(2) Please do not leave the LCD in the environment of high humidity and high temperature such as 60℃ 90%RH.
(3) Please do not leave the LCD in the environment of low temperature; below -15℃.

2-4 HIGH VOLTAGE WARNING

Tbe high voltage was only generated by INVERTER module, if carelessly contacted the transformer on this module, can cause a serious shock. (the lamp voltage after stable around 600V, with lamp current around 6.5mA, and the lamp starting voltage was around 1650V, at Ta=25℃)

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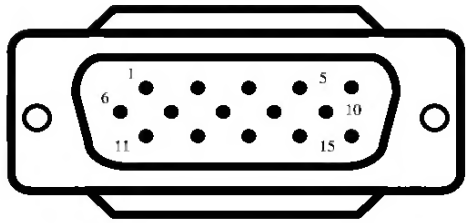
3. OPERATING INSTRUCTIONS

This procedure gives you instructions for installing and using the LCD monitor display.

1. Position the display on the desired operation and plug–in the power cord into External Adapter AC outlet. Three-wire power cord must be shielded and is provided as a safety precaution as it connects the chassis and cabinet to the electrical conduct ground. If the AC outlet in your location does not have provisions for the grounded type plug, the installer should attacb the proper adapter to ensure a safe ground potential.

2. Connect the 15-pin color display shielded signal cable to your signal system device and lock both screws on the connector to ensure firm grounding. The connector information is as follow:



15 - Pin Color Display Signal Cable

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1.	RED	9.	5V power from VGA-card
2.	GREEN	10.	GND
3.	BLUE	11.	SYNC. GND
4.	GND	12.	SDA
5.	GND	13.	HORIZ. SYNC
6.	GND-R	14.	VERT. SYNC
7.	GND-G	15.	SCL
8.	GND-B		

3. Apply power to the display hy turning the power switch to the "ON" position and allow about thirty seconds for Panel warm-up. The Power-On indicator lights when the display is on.
4. With proper signals feed to the display, a pattern or data sbould appear on the screen, adjust the hrightness and contrast to the most pleasing display, or press auto-key to get the best picture-quality.
5. This monitor has power saving function following the VESA DPMS. Be sure to connect the signal cable to the PC.
6. If your LCD monitor requires service, it must be returned with the power cord & Adapter.

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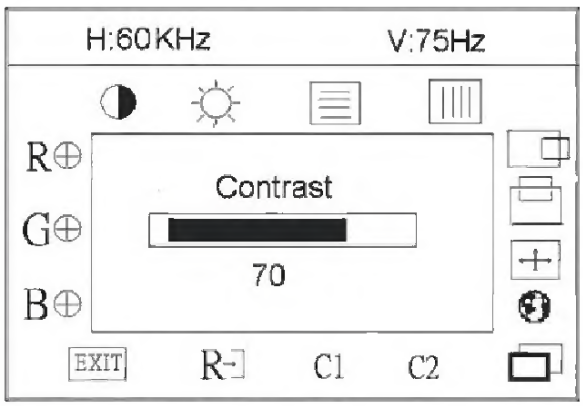
4. ADJUSTMENT

4-1 ADJUSTMENT CONDITIONS AND PRECAUTIONS

Adjustments should be undertaken only on following function : Contras , Brightness, Black level, Phase, Clock , H/V-position , Languages, Color-(C2,C1,User), Auto level, OSD-position, Languages, Reset

4-2 ADJUSTMENT METHOD

Press MENU button to activate OSD Menu or make a confirmation on desired function, Press Left/Right button to select the function or done the adjustment.



1. White-Balance, Luminance Adjustment
   Approximately 30 minutes should be allowed for warm up before proceeding white balance adjustment.

Before started adjust white balance ,please setting the Chroma-7120 **MEM. Channel 1 to C2** color and **MEM. channel 2 to C1** color, (our C2 parameter is x = 302 ±20, y = 319 ±20, Y = 200 ±20cd/m2 and C1 parameter is x = 313 ±20, y = 329 ±20, Y = 200 ±20 cd/m^2)

How to setting MEM.cbannel you can reference to chroma 7120 user guide or simple use " **SC**" key and " **NEXT**" key to modify x,yY value and use "**ID**" key to modify the TEXT description

Following is the procedure to do white-balance adjust

Press MENU button during 1 seconds along with plug in the DC-power cord will activate the factory mode, and the OSD screen will located at **left top of panel**.

I. Bias (Low luminance) adjustment :

1. Press " AUTO" button , and wait for message " Pass"
2. Set the contrast on OSD window to the value=45 , color (user)R,G,B set to "**50**"
3. adjust the **brigbtness** on OSD until chroma 7120 measurement reach the value Y=240 cd/m^2 ±10 cd/m^2

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II. Gain adjustment :

a. adjust C2 color-temperature

1. Set the Contrast of OSD function to 45 and Adjust Brightness to chroma 7120 Y=240 ±5 cd/m^2
2. Switch the chroma-7120 to **RGB-mode** (with press "MODE" button)
3. Switch the MEM.channel to Channel 01 (with up or down arrow on chroma 7120)
4. The lcd-indicator on chroma 7120 will show x = 302 ±10, y = 319 ±10, Y = 200 ±5 cd/m^2
5. Adjust the Color(user)Mode: RED on OSD window, until chroma 7120 indicator reached the value R=100
6. Adjust the Color(user)Mode: GREEN on OSD window, until chroma 7120 indicator reached the value G=100
7. Adjust the Color(user)Mode: BLUE on OSD window, until chroma 7120 indicator reached the value B=100
8. repeat above procedure (item 5,6,7) until chroma 7120 RGB value meet the torlence =100±2
9. switch the chroma-7120 to **xyY mode** With press "MODE" button
10. Press Color (7800) on OSD window to save the adjustment result

b. adjust C1 color-temperature

1 Set the Contrast of OSD function to 45 and Adjust Brightness to chroma 7120 Y=240 ±5 cd/m^2
2 Switch the chroma-7120 to **RGB-mode** (with press "MODE" button)
3 switch the MEM.channel to Cbannel 02 (with up or down arrow on chroma 7120)
4 The lcd-indicator on chroma 7120 will show x = 313 ±10, y = 329 ±10, Y = 200 ±5 cd/m^2
5 Adjust the Color(user)Mode: RED on OSD window, until chroma 7120 indicator reached the value R=100
6 Adjust the Color(user)Mode: GREEN on OSD window, until chroma 7120 indicator reached the value G=100
7 Adjust the Color(user)Mode: BLUE on OSD window, until chroma 7120 indicator reached the value B=100
8 repeat above procedure (item 5,6,7) until chroma 7120 RGB value meet the tolence =100±2
9 switch the chroma-7120 to **xyY mode** With press "MODE" button
10 Press Color(C1) on OSD window to save the adjustment result

Turn the POWER-button off to on to quit from factory mode (in USER-mode, the OSD window location was placed at middle of screen)

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2. Clock adjustment
   Set the Chroma at pattern 63 (cross-talk pattern) or WIN98/95 shut-down mode (dot-pattern).
   Adjust until the vertical-Stripe-shadow as wide as possible or no visible.
   This function is adjust the PLL divider of ADC to generate an accurate pixel clock
   Example : Hsyn = 31.5KHz Pixel freq. = 25.175MHz (from VESA spec)
   The Divider number is (N) = (Pixel freq. x 1000)/Hsyn
   From this formula, we get the Divider number, if we fill this number in ADC register (divider register), the PLL of ADC will generate a clock which have same period with above Pixel freq.(25.175MHz) the accuracy of this clock will effect the size of screen.(this clock was called PIXEL-CLOCK)

3. Focus adjustment
   Set the Chroma at pattern 63 (cross talk pattern) or WIN98/95 shut down mode (dot-pattern).
   Adjust the borizontal interference as less as possible
   This function is adjust the phase shift of PIXEL-CLOCK to acquire the right pixel data .
   If the relationship of pixel data and pixel clock not so match, we will see the horizontal interference on screen ,we only find this phenomena in crosstalk pattern or dot pattern , other pattern the effect is very light

4. H/V-Position adjustment
   Set the Chroma to pattern 1 (crosshatch pattern) or WIN98/95 full-white pattern confirm above item 2 & 3 functions (clock & focus) was done well, if that 2 functions failed, the H/V position will be failed too.
   Adjust the four edge until all four-edges are visible at the edge of screen.

5. LANGUAGE function
   There are 5 language for selection, press "MENU" to selected and confirm , press " LEFT" or " RIGHT" to change the kind of language (English , Deutch, Francais, Espanol, Italian)

6. Reset function
   Clear each old status of auto-configuration and re-do auto-configuration (for all mode)
   Tbis function also recall C2 color-temperature , if the monitor status was in " Factory-mode" this reset function will clear Power-on counter (backlight counter) too.

7. OSD-LOCK function
   Press Left & Right key during switching on the monitor, the access to the OSD is locked, user only has access to " Contrast, Brightness, Auto-key ".
   If the operator pressed the Left & Right during switching on the monitor again , the OSD is unlocked.

4-3 FRONT PANEL CONTROL KNOBS

Power button : Press to switch on or switcb off the monitor.
Auto button : to perform the automatic adjustment from CLOCK, FOCUS, H/V POSITION, but no affect the color-temperature
Left/Right button : select function or do an adjustment.
MENU button : to activate the OSD window or to confirm the desired function

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5. CIRCUIT-DESCRIPTION

5-1 SPECIAL FUNCTION WITH PRESS-KEY

A). press **Menu** button during 2 seconds along with **plug-in tbe DC Power cord**.
That operation will set the monitor into "Factory- mode", in Factory mode we can do the White balance adjustment with RS232
In Factory mode, OSD-screen will locate in left top of screen.
Press POWER-button off to on once will quit from factory mode and back to user-mode.

B). Press **botb Left & Right button along with Power button** off to on once will activate the OSD-LOCK function, repeat this procedure will disable OSD-LOCK
In OSD-LOCK function, all OSD function will be lock , except Contrast and Brightness

OSD-INDEX EXPLANATION

1. **CABLE NOT CONNECTED**: Signal-cable not connected

2. **INPUT NOT SUPPORT**:
   a. INPUT frequency out of range: H > 83kHz, v > 75Hz or H < 28kHz, v < 55Hz
   b. INPUT frequency out of VESA-spec (out of tolerance too far)

5-2 CIRCUIT FUNCTION DESCRIPTION

1. U200,GMZAN2 (all-in-one chip solution for ADC, OSD, scalar and interpolation) :
   USE for computer graphics images to convert analog RGB data to digital data with interpolation process, zooming, generated the OSD font , perform overlay function and generate drive-timing for LCD-PANEL.

2. U302,W78E65(WINBOND- MCU, type 8052 series with 64k Rom-size and 512 byte ram) :
   Use for calculate frequency, pixel-dot , detect change mode, rs232-communication, power-consumption control, OSD-index warning , …etc.

3. U203,24LC21 (MicroChip IC) :
   EEPROM type, 1K ROM-SIZE, for saving DDC-CONTENT.

4. U300,24C16 (ATMEL IC) :
   EEPROM type, 16K ROM-SIZE, for saving AUTO-config data, White-balance data, and Power-key status and Backlight-counter data.

5. U304,LM2569S(NS brand switching regulator 12V to 5V with 3A load current) .

6. U305,AIC 1084-33CM (AIC brand linear regulator 5V to 3.3V)

7. U905,RT9164(Linear regulator 5V to 2.5V)

8. U600,U601,LVDS (use NOVATEK NT7181F)
   Convert the TTL signal to LVDS signal , the advantage of LVDS signal is : the wire can be lengthen and eliminate wire number , low EMI .LVDS signal is high frequency but low voltage, only 0.35 VPP ,the frequency is seven times higher than TTL

9. U401, 74F14D(Schmitt triggger)
   The 74F14 contains six logic inverters which accept standard TTL input signals and provide standard TTL Output levels

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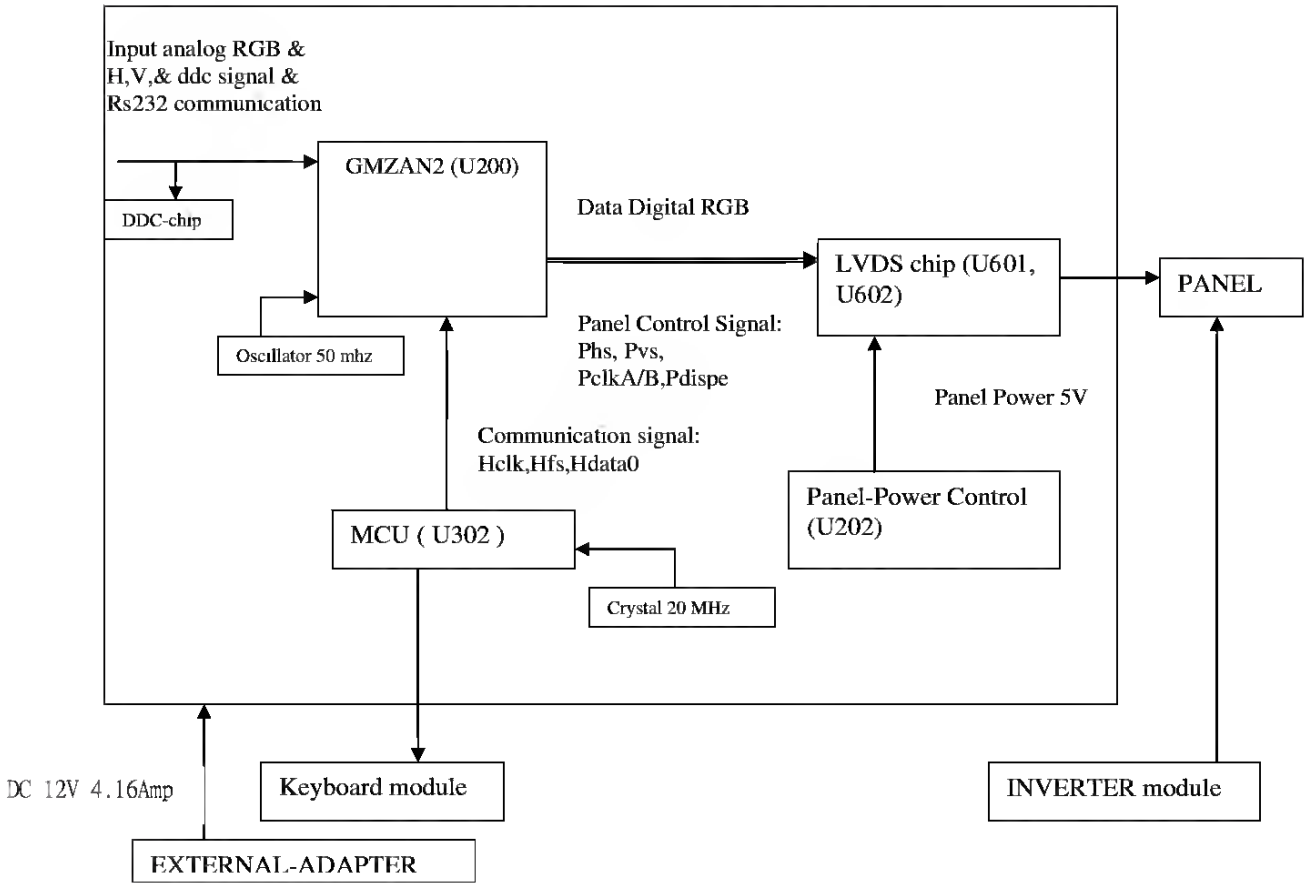
MODULE-TPYE COMPONENT:

1. ADAPTER : CONVERSION-module to convert AC 110V-240V to 12VDC, with 4.16 AMP
2. INVERTER : CONVERSION-module to convert DC 12V to High-Voltage around 1650V, with frequency 30K-80Khz, 5 6mA-13mA

Main-board Block diagram



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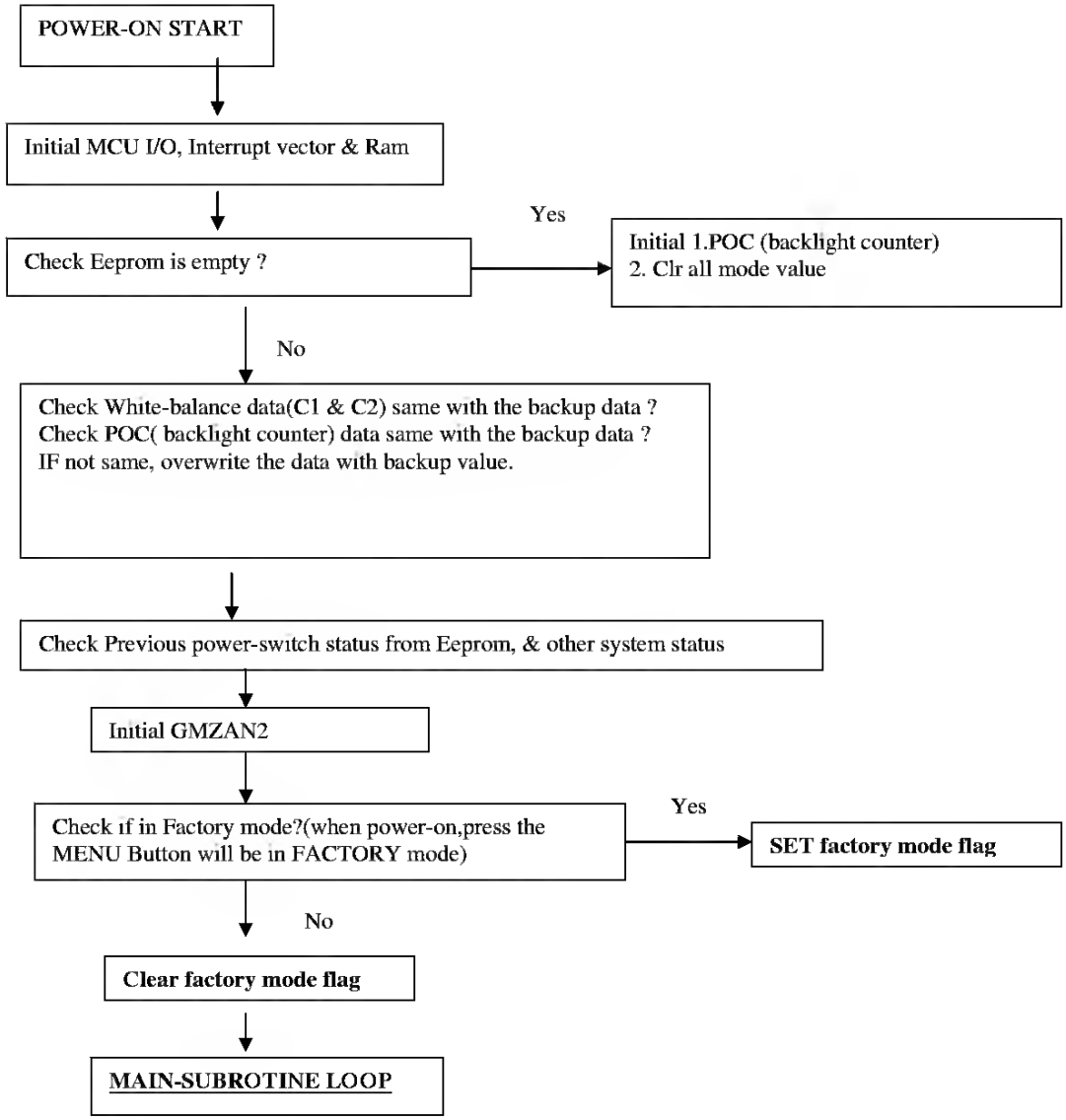
5-3 SOFTWARE FLOW CHART

I. Power-On Subroutine CHART


POWER-ON START
Initial MCU I/O, Interrupt vector & Ram
Check Eeprom is empty ?
Yes
Initial 1.POC (backlight counter)
2. Clr all mode value
No
Check White-balance data(C1 & C2) same with the backup data ?
Check POC(backlight counter) data same with the backup data ?
IF not same, overwrite the data with backup value.
Check Previous power-switch status from Eeprom, & other system status
Initial GMZAN2
Check if in Factory mode?(when power-on,press the MENU Button will be in FACTORY mode)
Yes
SET factory mode flag
No
Clear factory mode flag
MAIN-SUBROTINE LOOP

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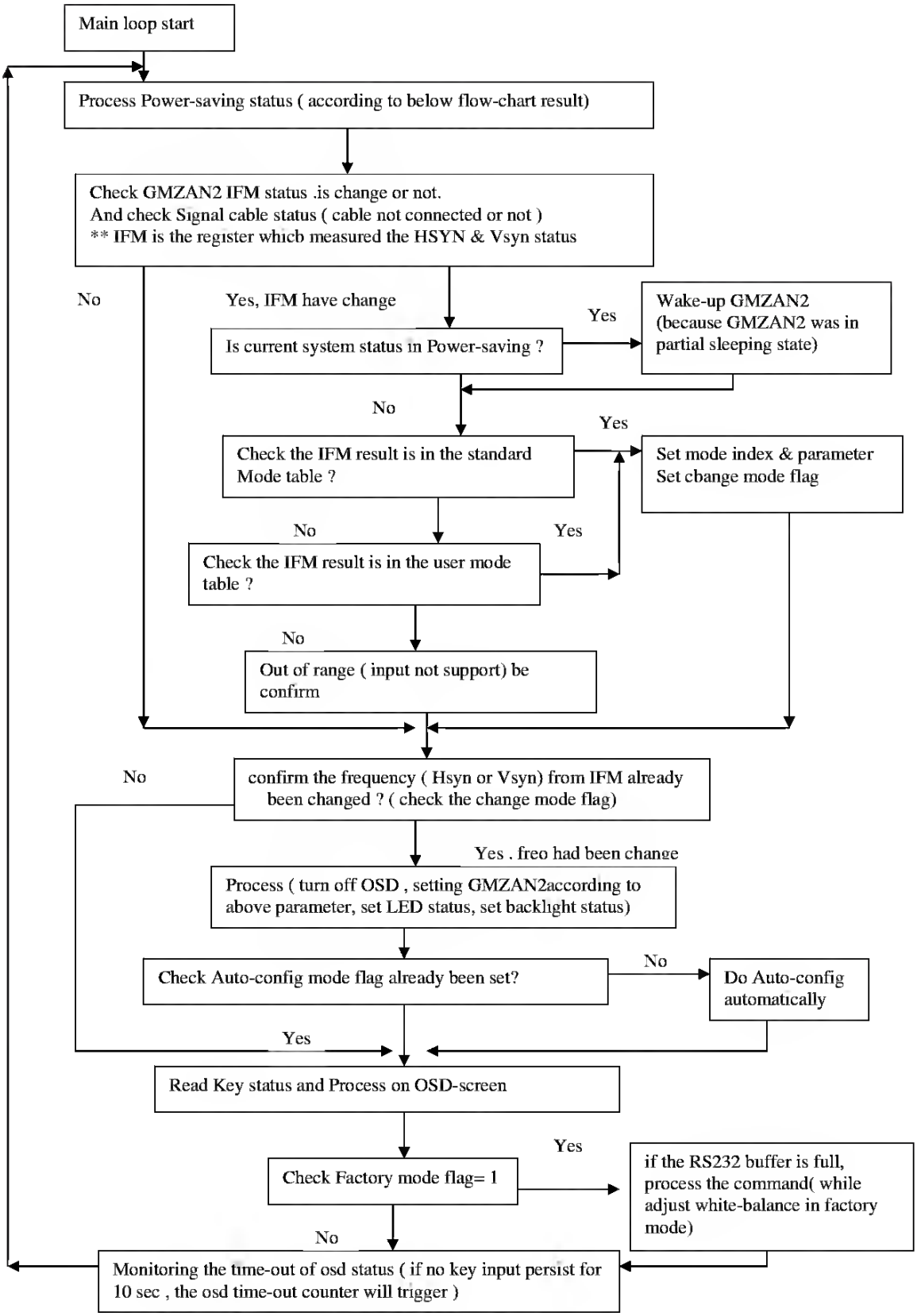
II. MAIN SUBROTINE LOOP


Main loop start
Process Power-saving status (according to below flow-chart result)
Check GMZAN2 IFM status .is change or not.
And check Signal cable status (cable not connected or not)
** IFM is the register whicb measured the HSYN & Vsyn status
No
Yes, IFM have change
Yes
Wake-up GMZAN2
(because GMZAN2 was in
partial sleeping state)
Is current system status in Power-saving ?
No
Yes
Check the IFM result is in the standard
Mode table ?
Set mode index & parameter
Set change mode flag
No
Yes
Check the IFM result is in the user mode
table ?
No
Out of range (input not support) be
confirm
No
confirm the frequency (Hsyn or Vsyn) from IFM already
been changed ? (check the change mode flag)
Yes . freo had been change
Process (turn off OSD , setting GMZAN2according to
above parameter, set LED status, set backlight status)
Check Auto-config mode flag already been set?
No
Do Auto-config
automatically
Yes
Read Key status and Process on OSD-screen
Yes
Check Factory mode flag= 1
if the RS232 buffer is full,
process the command(while
adjust white-balance in factory
mode)
No
Monitoring the time-out of osd status (if no key input persist for
10 sec , the osd time-out counter will trigger)

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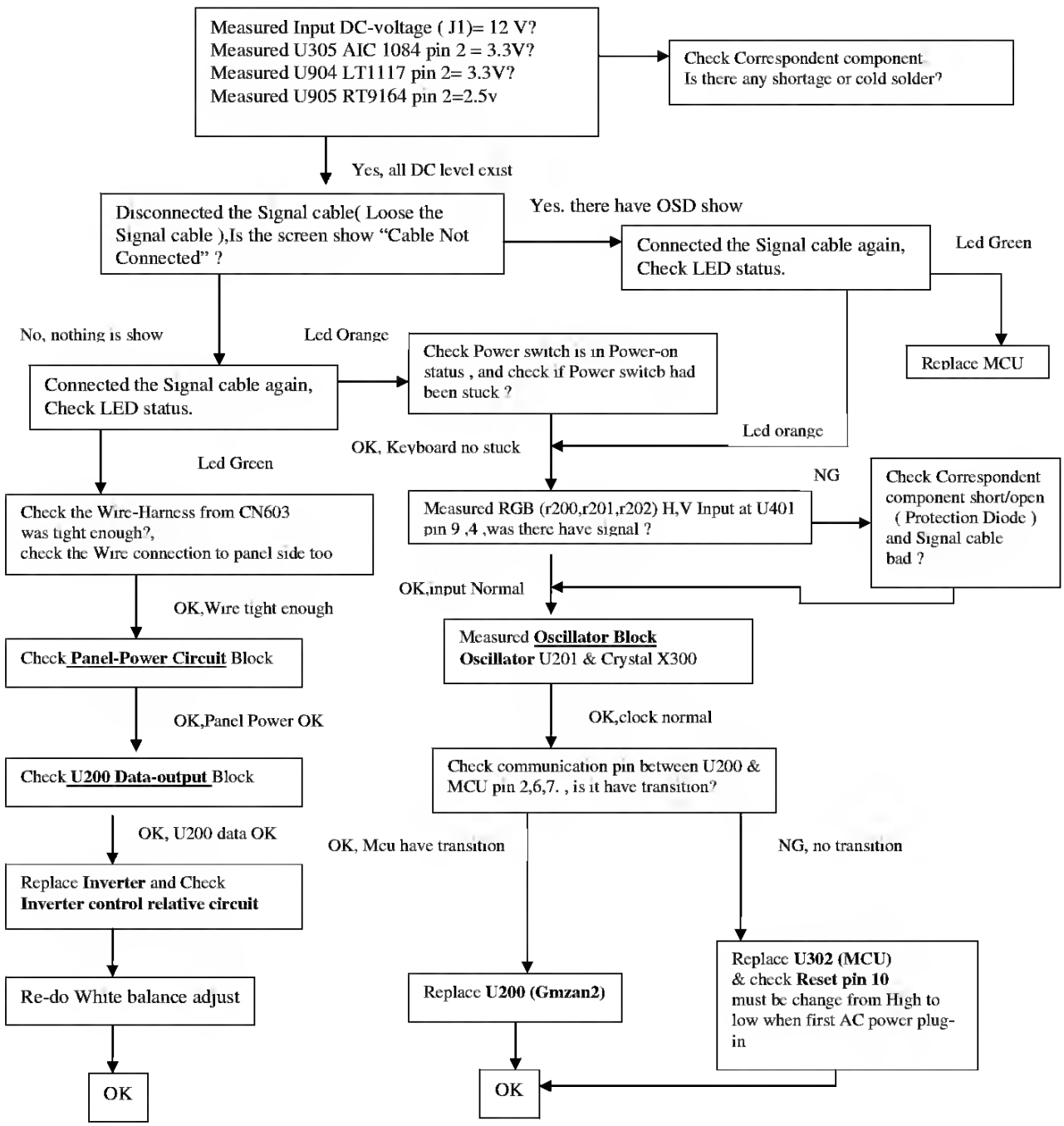
6 A). INTERFACE-BOARD TROUBLE-SHOOTING CHART

***Use the PC Win 98 white pattern, with some icon on it, and Change the Resolution to 640x480 60 Hz / 31 KHz**
****NOTICE : The free-running freq. of our system is 48 KHz / 60 Hz, so we recommend to use another resolution to do trouble shooting, this trouble shooting is proceed with 640x480 @60Hz 31Khz**

I. NO SCREEN APPEAR

DC-Power Part


Measured Input DC-voltage (J1)= 12 V?
Measured U305 AIC 1084 pin 2 = 3.3V?
Measured U904 LT1117 pin 2= 3.3V?
Measured U905 RT9164 pin 2=2.5v
Check Correspondent component
Is there any shortage or cold solder?
Yes, all DC level exist
Disconnected the Signal cable(Loose the Signal cable),Is the screen show "Cable Not Connected" ?
Yes. there have OSD show
Connected the Signal cable again, Check LED status.
Led Green
Replace MCU
No, nothing is show
Led Orange
Connected the Signal cable again, Check LED status.
Check Power switch is in Power-on status , and check if Power switch had been stuck ?
Led orange
OK, Keyboard no stuck
Led Green
Check the Wire-Harness from CN603 was tight enough?, check the Wire connection to panel side too
Measured RGB (r200,r201,r202) H,V Input at U401 pin 9 ,4 ,was there have signal ?
NG
Check Correspondent component short/open (Protection Diode) and Signal cable bad ?
OK,input Normal
OK,Wire tight enough
Check Panel-Power Circuit Block
Measured Oscillator Block Oscillator U201 & Crystal X300
OK,Panel Power OK
OK,clock normal
Check U200 Data-output Block
Check communication pin between U200 & MCU pin 2,6,7. , is it have transition?
OK, U200 data OK
OK, Mcu have transition
NG, no transition
Replace Inverter and Check Inverter control relative circuit
Re-do White balance adjust
Replace U200 (Gmzan2)
Replace U302 (MCU) & check Reset pin 10 must be change from High to low when first AC power plug-in
OK
OK

Note: 1. if Replace "**MAIN-BOARD**" , Please re-do "DDC-content" programmed & "WHITE-Balance".
2. if Replace " **INVERTER**" only, Please re-do " WHITE-Balance"

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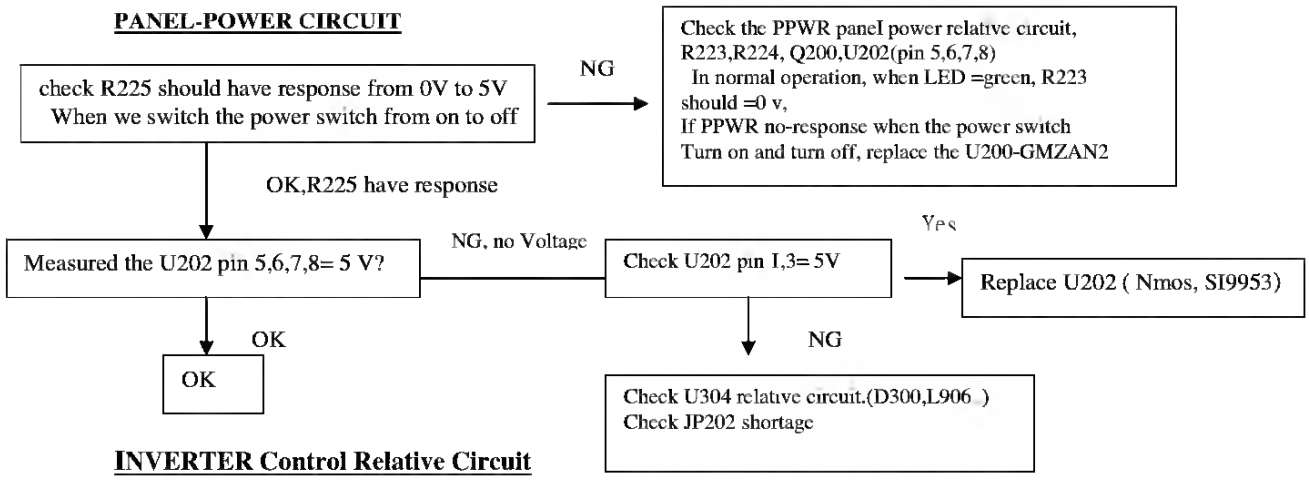
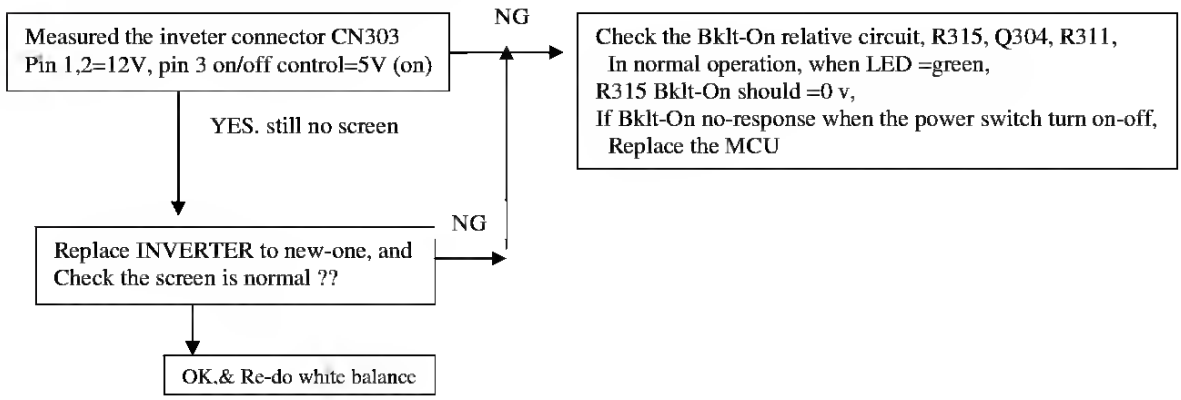
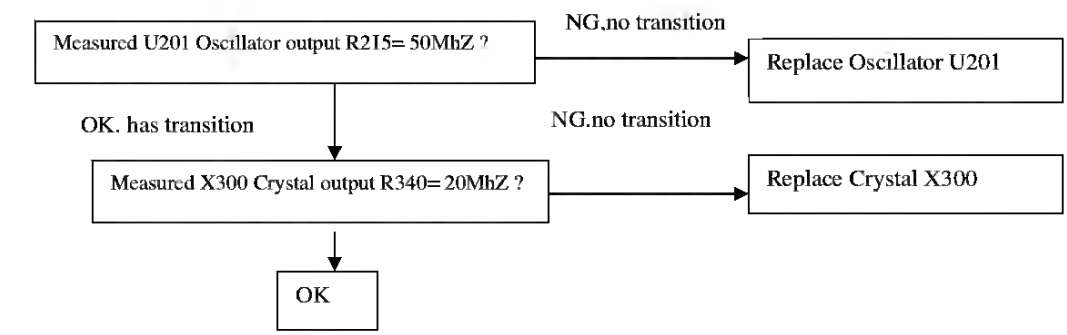
PANEL-POWER CIRCUIT


check R225 should have response from 0V to 5V
When we switch the power switch from on to off
NG
Check the PPWR panel power relative circuit,
R223,R224, Q200,U202(pin 5,6,7,8)
In normal operation, when LED =green, R223
should =0 v,
If PPWR no-response when the power switch
Turn on and turn off, replace the U200-GMZAN2
OK,R225 have response
Measured the U202 pin 5,6,7,8= 5 V?
NG, no Voltage
Check U202 pin I,3= 5V
Yes
Replace U202 (Nmos, SI9953)
OK
OK
NG
Check U304 relative circuit.(D300,L906)
Check JP202 shortage

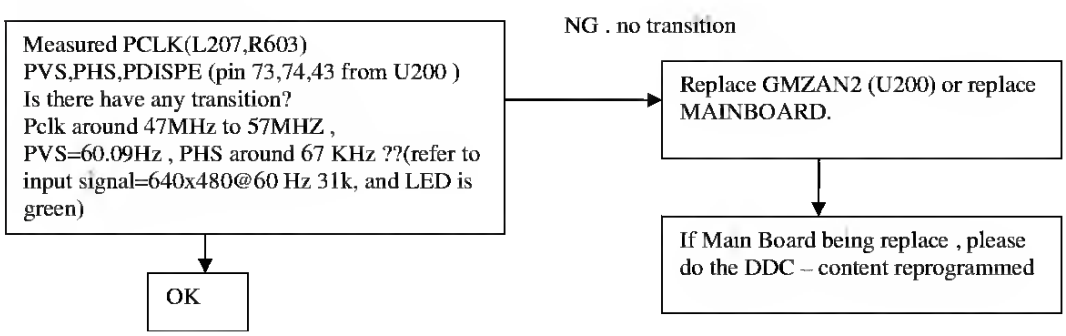
INVERTER Control Relative Circuit


Measured the inveter connector CN303
Pin 1,2=12V, pin 3 on/off control=5V (on)
NG
Check the Bklt-On relative circuit, R315, Q304, R311,
In normal operation, when LED =green,
R315 Bklt-On should =0 v,
If Bklt-On no-response when the power switch turn on-off,
Replace the MCU
YES. still no screen
NG
Replace INVERTER to new-one, and
Check the screen is normal ??
OK.& Re-do white balance

OSCILLATOR BLOCK



U200-DATA OUTPUT


Measured PCLK(L207,R603)
PVS,PHS,PDISPE (pin 73,74,43 from U200)
Is there have any transition?
Pclk around 47MHz to 57MHZ ,
PVS=60.09Hz , PHS around 67 KHz ??(refer to
input signal=640x480@60 Hz 31k, and LED is
green)
NG . no transition
Replace GMZAN2 (U200) or replace
MAINBOARD.
If Main Board being replace , please
do the DDC – content reprogrammed
OK

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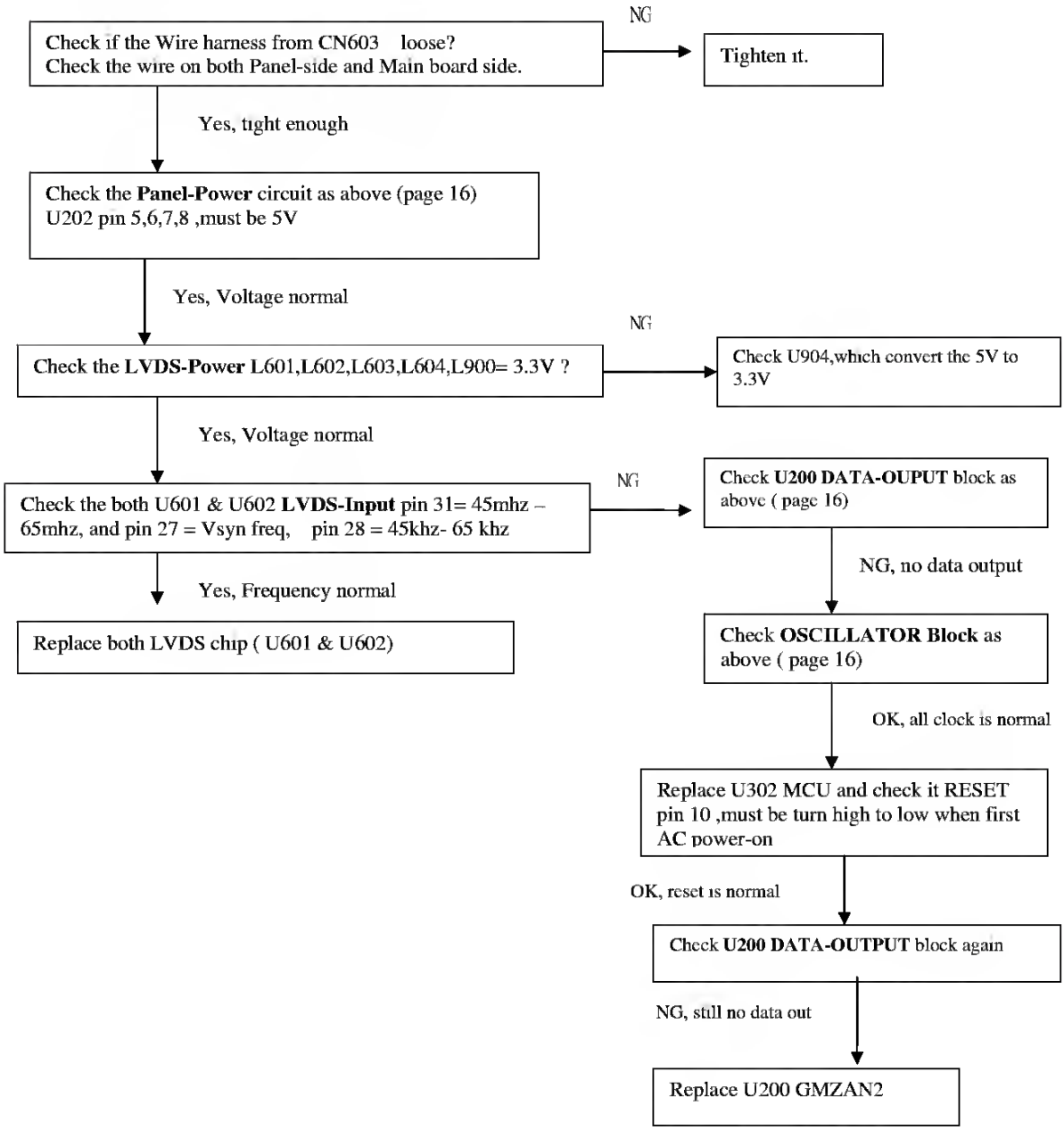
II (a) THE SCREEN is Abnormal , stuck at white screen, OSD window can't appear, but keyboard & LED was normal operation.

At general, this symptom is cause by missing panel data or panel power, so we must check our wire-harness which connected to panel or the panel power controller (U202)


Check if the Wire harness from CN603 loose?
Check the wire on both Panel-side and Main board side.
NG
Tighten it.
Yes, tight enough
Check the Panel-Power circuit as above (page 16)
U202 pin 5,6,7,8 ,must be 5V
Yes, Voltage normal
Check the LVDS-Power L601,L602,L603,L604,L900= 3.3V ?
NG
Check U904,which convert the 5V to 3.3V
Yes, Voltage normal
Check the both U601 & U602 LVDS-Input pin 31= 45mhz – 65mhz, and pin 27 = Vsyn freq, pin 28 = 45khz- 65 khz
NG
Check U200 DATA-OUPUT block as above (page 16)
NG, no data output
Yes, Frequency normal
Replace both LVDS chip (U601 & U602)
Check OSCILLATOR Block as above (page 16)
OK, all clock is normal
Replace U302 MCU and check it RESET pin 10 ,must be turn high to low when first AC power-on
OK, reset is normal
Check U200 DATA-OUTPUT block again
NG, still no data out
Replace U200 GMZAN2

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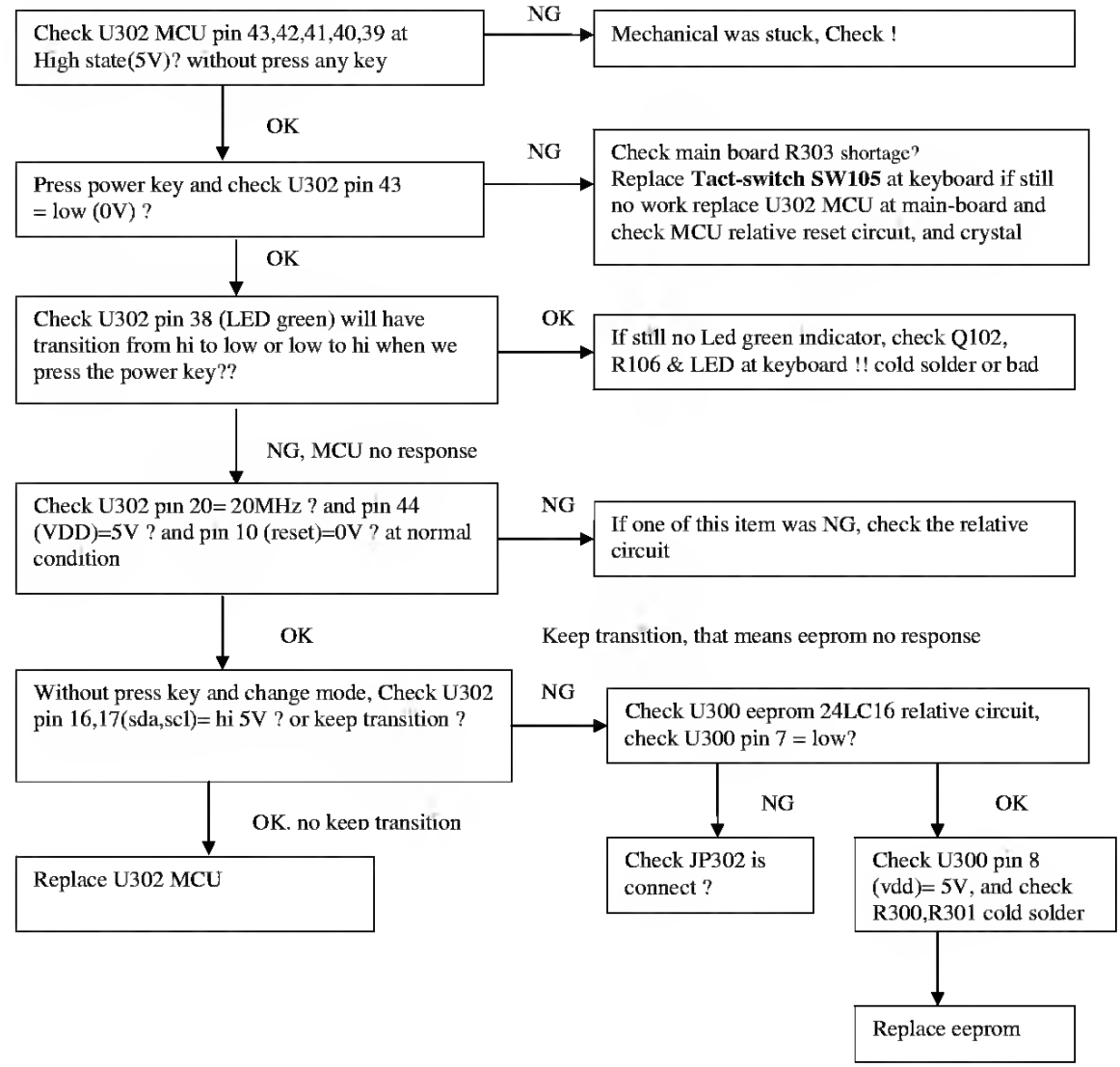
II. (b)The screen had the Vertical Straight Line, might be stuck in Red, Green, Blue

That symptom is cause by bad Panel issue (might be the Source IC from Panel is cold solder or open loop) so REPLACE THE PANEL TO NEW ONE.

KEYBOARD BLOCK check


Check U302 MCU pin 43,42,41,40,39 at High state(5V)? without press any key
NG
Mechanical was stuck, Check !
OK
Press power key and check U302 pin 43 = low (0V) ?
NG
Check main board R303 shortage?
Replace Tact-switch SW105 at keyboard if still no work replace U302 MCU at main-board and check MCU relative reset circuit, and crystal
OK
Check U302 pin 38 (LED green) will have transition from hi to low or low to hi when we press the power key??
OK
If still no Led green indicator, check Q102, R106 & LED at keyboard !! cold solder or bad
NG, MCU no response
Check U302 pin 20= 20MHz ? and pin 44 (VDD)=5V ? and pin 10 (reset)=0V ? at normal condition
NG
If one of this item was NG, check the relative circuit
OK
Keep transition, that means eeprom no response
Without press key and change mode, Check U302 pin 16,17(sda,scl)= hi 5V ? or keep transition ?
NG
Check U300 eeprom 24LC16 relative circuit, check U300 pin 7 = low?
NG
OK
OK. no keep transition
Check JP302 is connect ?
Check U300 pin 8 (vdd)= 5V, and check R300,R301 cold solder
Replace U302 MCU
Replace eeprom

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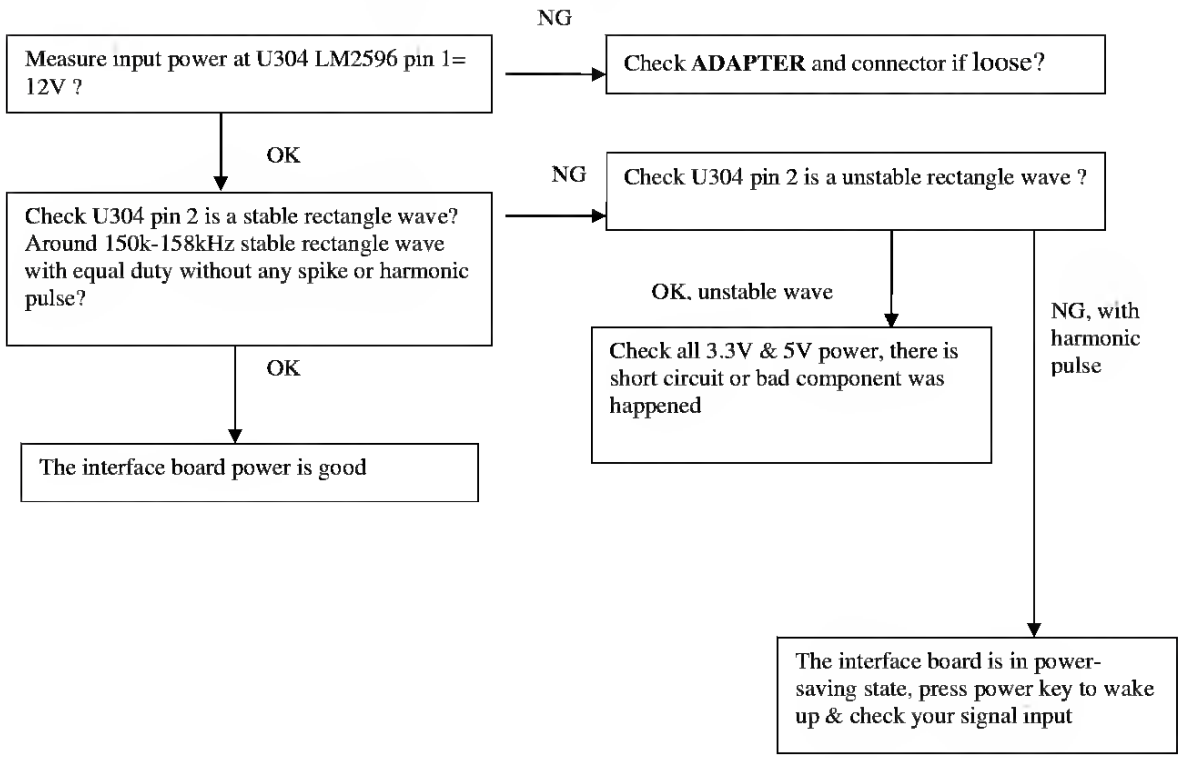
POWER-BLOCK check

**Note : the Waveform of U304 pin 2 can determined the power situation

1. stable rectangle waveform with equal duty, freq around 150K-158KHz
   that means all power of this interface board is in normal operation
   ,and all status of 5V & 3.3V is working well
2. unstable or uneven rectangle waveform without same duty, that means ABNORMAL operation was happened, check 3.3V or 5V ,if short-circuit or bad component
3. rectangle waveform with large spike & harmonic pulse on front side , means all 3.3v is no load, U200 **Gmzan2** was shut-down, and only U302 MCU still working , that means the monitor is in power saving status , all power system is working well .


Measure input power at U304 LM2596 pin 1= 12V ?
NG
Check ADAPTER and connector if loose?
OK
Check U304 pin 2 is a stable rectangle wave? Around 150k-158kHz stable rectangle wave with equal duty without any spike or harmonic pulse?
NG
Check U304 pin 2 is a unstable rectangle wave ?
OK, unstable wave
NG, with harmonic pulse
Check all 3.3V & 5V power, there is short circuit or bad component was happened
OK
The interface board power is good
The interface board is in power-saving state, press power key to wake up & check your signal input

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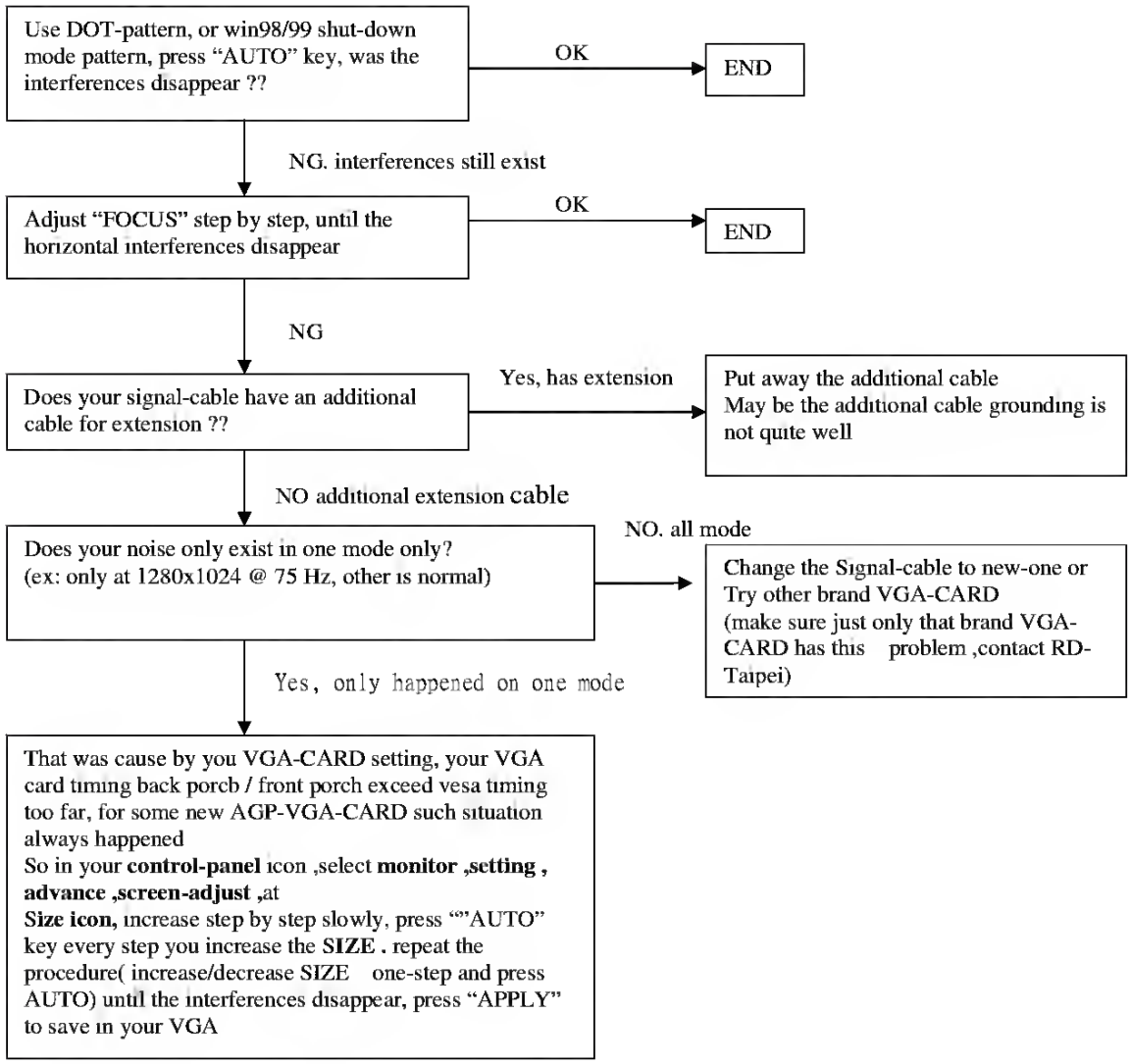
III.ALL SCREEN HAS INTERFERENCES OR NOISE, CAN'T BE FIXED BY AUTO KEY

** **NOTE:** There is so many kind of interferences, 1). One is cause by some VGA-CARD that not meet VESA spec or power grounding too bad that influence our circuit
2).other is cause by external interferences, move the monitor far from electronic equipment.(rarely happened)


Use DOT-pattern, or win98/99 shut-down mode pattern, press "AUTO" key, was the interferences disappear ??
OK
END
NG. interferences still exist
Adjust "FOCUS" step by step, until the horizontal interferences disappear
OK
END
NG
Does your signal-cable have an additional cable for extension ??
Yes, has extension
Put away the additional cable
May be the additional cable grounding is not quite well
NO additional extension cable
Does your noise only exist in one mode only?
(ex: only at 1280x1024 @ 75 Hz, other is normal)
NO. all mode
Change the Signal-cable to new-one or Try other brand VGA-CARD
(make sure just only that brand VGA-CARD has this problem ,contact RD-Taipei)
Yes, only happened on one mode
That was cause by you VGA-CARD setting, your VGA card timing back porch / front porch exceed vesa timing too far, for some new AGP-VGA-CARD such situation always happened
So in your control-panel icon ,select monitor ,setting , advance ,screen-adjust ,at
Size icon, increase step by step slowly, press ""AUTO" key every step you increase the SIZE . repeat the procedure(increase/decrease SIZE one-step and press AUTO) until the interferences disappear, press "APPLY" to save in your VGA

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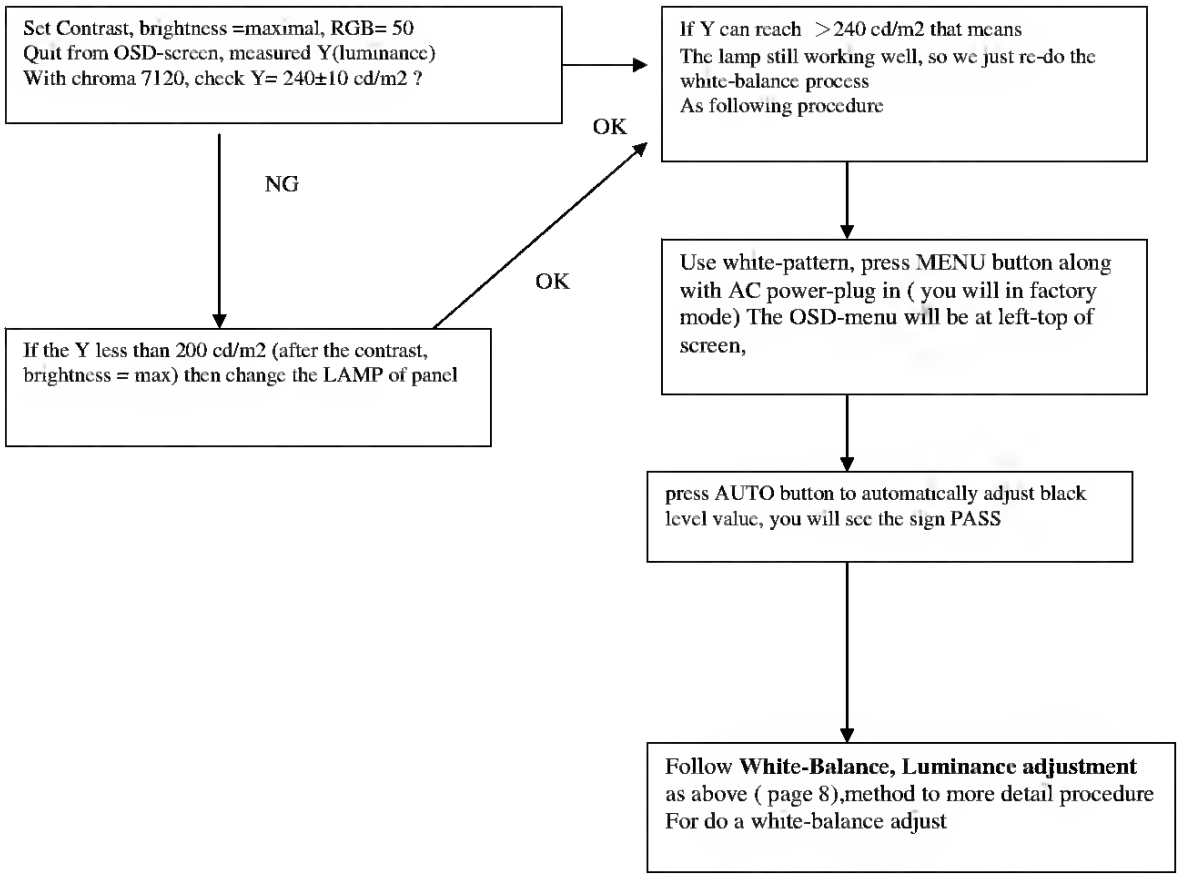
There is interferences in **DOS MODE**

NOTE :the criteria of doing AUTO-CONFIGURATION : must be a full-size screen, if the screen not full , the auto-configuration will fail. So in dos mode ,just set your "CLOCK" in OSD-MENU to zero or use some EDITOR software which can full fill the whole screen (ex: PE2, HE) and then press "AUTO"
Or you can use "DOS1.EXE" which attached in your Driver disk to optimize DOS mode performance

V.THE PANEL LUMINANCE WAS DOWN

Use white pattern and resolution 1280x1024 @ 60Hz , CHROMA 7120 measured the center of panel


Set Contrast, brightness =maximal, RGB= 50
Quit from OSD-screen, measured Y(luminance)
With chroma 7120, check Y= 240±10 cd/m2 ?
OK
NG
If Y can reach >240 cd/m2 that means
The lamp still working well, so we just re-do the white-balance process
As following procedure
OK
Use white-pattern, press MENU button along with AC power-plug in (you will in factory mode) The OSD-menu will be at left-top of screen,
If the Y less than 200 cd/m2 (after the contrast, brightness = max) then change the LAMP of panel
press AUTO button to automatically adjust black level value, you will see the sign PASS
Follow White-Balance, Luminance adjustment as above (page 8),method to more detail procedure For do a white-balance adjust

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6 B). INVERTER –MODULE SPEC &TROUBLE SHOOTING CHART

For AL801 model , use CMO panel, and the INVERTER is made by Emax

Parts No.: 79L L18 –1- E

I. CONNECTOR PIN ASSIGMENT:

A) CON1: INPUT

MODEL NO.: S5B-PH-SM3-TB

PIN	SYMBOL	DESCRIPTION
1	Vin	Input voltage: 12V
2	Vin	Input voltage: 12V
3	ON/OFF	ON: 3V OFF:0V
4	Dimming	Dimming range (0V~+5.0V)
5	GND	GND

B) CON2,CON3,CON4,CON5: OUTPUT

MODEL NO.: SM02B-BHSS-1-TB

PIN	SYMBOL	DESCRIPTION
1	HV OUTPUT	Input H.V to lamps
2	RETURN	Return to control

C) FUNCTION SPECIFICATIONS:

The data test with the set of SAMPO

DC TO DC CONVERTER

(ROOM TEMPERATURE 25℃ ±4℃)

ITEM	SYMBOL	MIN.	TYP.	MAX.	UNIT	REMARK
Input voltage	Vin	10.8	12	13.2	V	
Input current	Iin	--	2100	2500	mA	
output current adj:0v(min.)	Iout (min)	2.3	2.6	3.3	mA	FOR 1 CCFL LOAD:120KΩ
Output current adj.:5 v(max.)	Iout (max)	5.5	6.0	6.5	mA	FOR 1 CCFL LOAD:120KΩ
Frequency	F	40	50	60	KHZ	
H.V open	Vopen	1550	1700	1850	Vrms	NO LOAD
H.V Load	Vload	600	700	800	Vrms	RL=120KΩ

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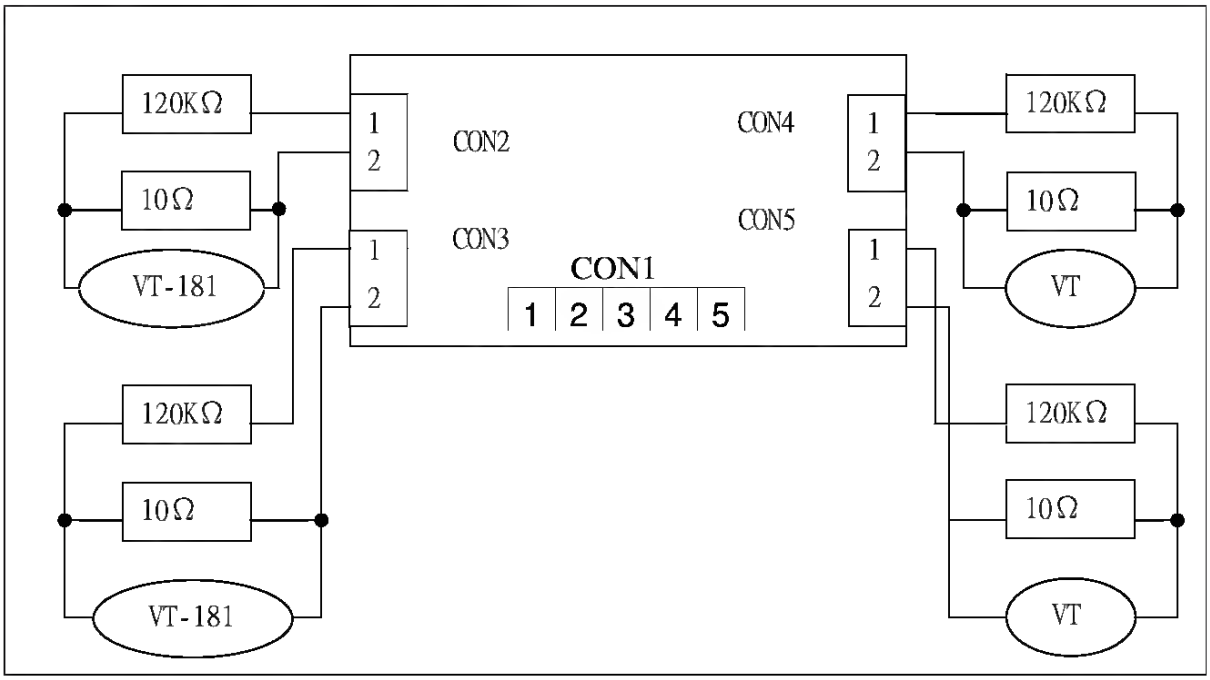
D) FUNCTION TEST CIRCUIT:



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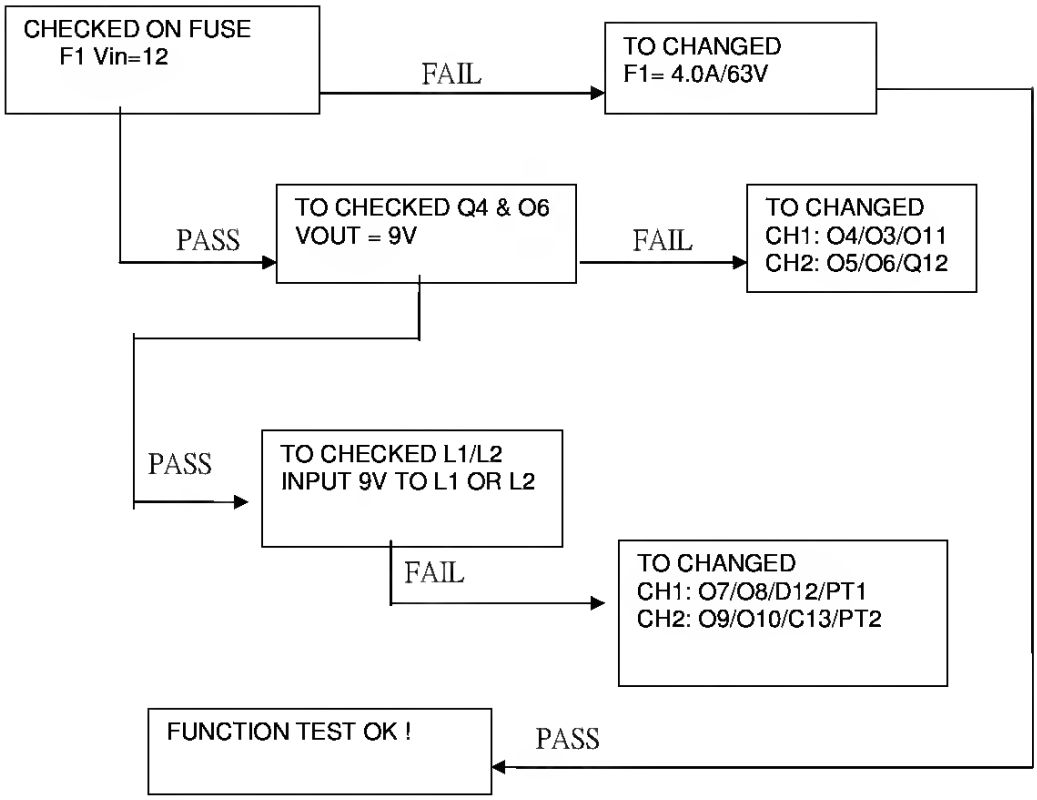
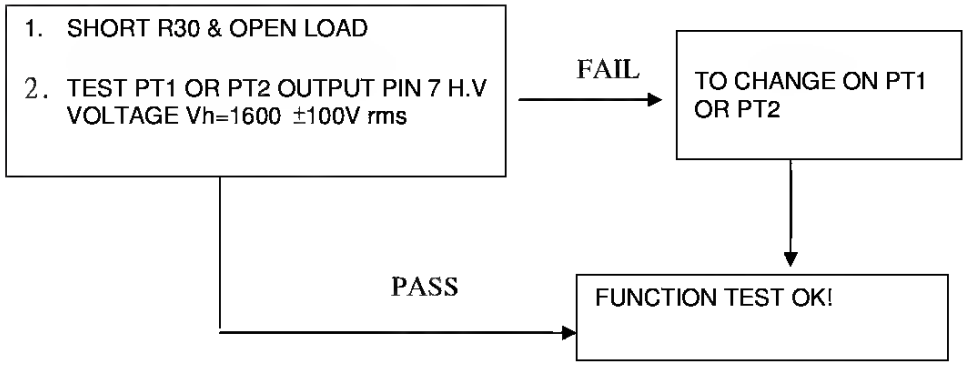
II. TROUBLE SHOOTING BLOCK DIAGRAM

A) NO POWER:



B) HIGHT VOLTAGE PROTECTION:



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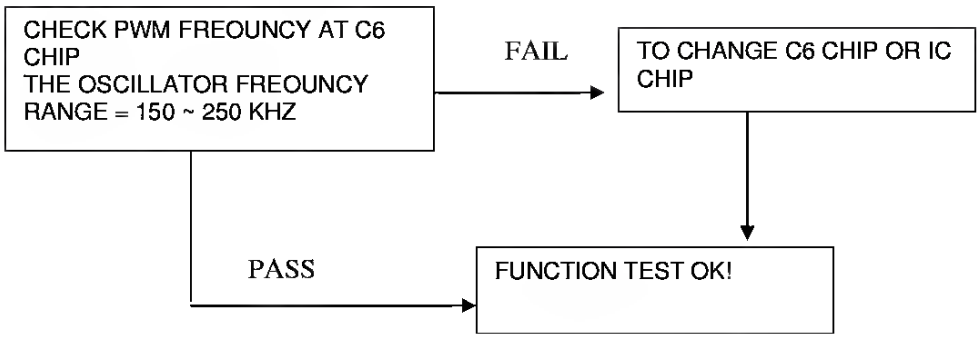
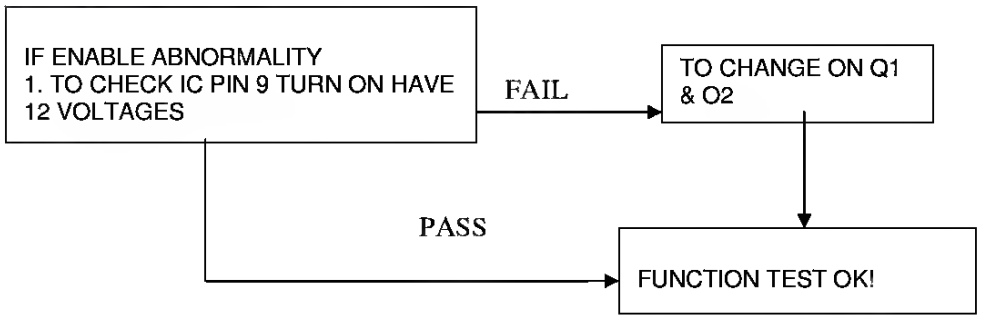
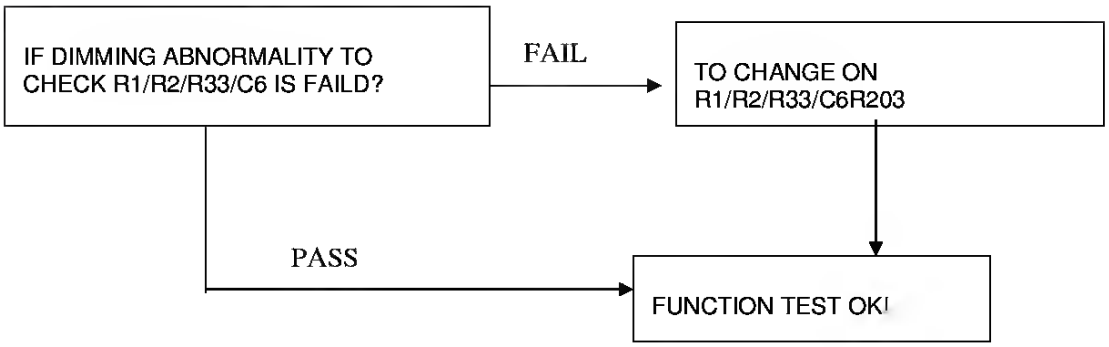
C) OUTPUT CURRENT ABNORMALITY:


CHECK PWM FREOUNCY AT C6 CHIP
THE OSCILLATOR FREOUNCY RANGE = 150 ~ 250 KHZ
FAIL
TO CHANGE C6 CHIP OR IC CHIP
PASS
FUNCTION TEST OK!

D) ENBALE ABNORMALITY:



E) DIMMING CONTROL ABNORMALITY:



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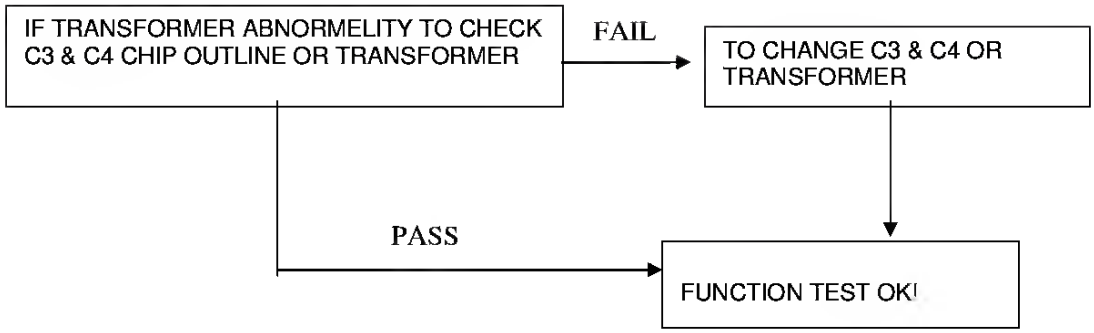
F) TRANSFORMER ABNORMALITY:


IF TRANSFORMER ABNORMELITY TO CHECK C3 & C4 CHIP OUTLINE OR TRANSFORMER
FAIL
TO CHANGE C3 & C4 OR TRANSFORMER
PASS
FUNCTION TEST OK!

G) INSTRUMENTS FOR TEST:

1.	DC POWER SUPPLY	GPS-3030D
2.	AC VTVM	VT:-181E
3.	DIGITAL MULTIMERTER	MODEL-34401
4.	HIGHTVOLT PROB	MODEL-1137A
5.	SCOPE	MODEL-V-6545

7. MECHANICAL OF CABINET FRONT DIS-ASSEMBLY

CBPC880KMYAE	CONVERSION BOARD FOR T	1.0000 PCS
DCPC780A5	DC JACK BOARD FOR T780	1.0000 PCS
KEPC880KY1	KEY BOARD FOR T880K*II	1.0000 PCS
7L 1 29	WOODEN PALLET	0.0150 PCS
7L 1 30	WOODEN PALLET	0.0980 PCS
15L5684501	MAIN FRAME	1.0000 PCS
15L5689 1 A	GND LUG (AL)	2.0000 PCS
15L5689 2 A	GND CLAMP	1.0000 PCS
33L4060 CA L	CABLE COVER	1.0000 PCS
33L4320 CA L	SCREW COVER	2.0000 PCS
33L4343 1	POWER LENS	1.0000 PCS
33L4361 CB 2L	KEY PAD	1.0000 PCS
34L 757 CA 2B	BACK COVER	1.0000 PCS
34L 895 CA B	ARM COVER	1.0000 PCS
34L 957ACA B	FRONT PANEL	1.0000 PCS
40L 152509	RECYCLE LABEL	0.0000 PCS

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40L 152512	RECYCLE LABEL	0.0000 PCS
40L 180786 1A	ID LABEL	1.0000 PCS
40L 457716 1A	TCO99 LABEL	1.0000 PCS
40L 459786 1A	CARTON LABEL	1.0000 PCS
40L 581 26704	FOR CARTON/PALLE	0.0500 PCS
41L 68508 A	Connalation card	0.2000 PCS
41L1800786 1A	MANUAL	1.0000 PCS
41L7800786 1A	WARRANTY BOOKLET	1.0000 PCS
41L7800786 2A	TCO'99 CARD	1.0000 PCS
44L3231 14	EVA WASHER	1.0000 PCS
44L3234786 1A	CARTON	1.0000 PCS
44L3715 1	EPS(L)	1.0000 PCS
44L3715 2	EPS(R)	1.0000 PCS
44L6000 4 6B	SPACE PAPER	0.0100 PCS
44L9003 9	CORNER PAPER	0.0980 PCS
44LLCDK 2	CUSHION FOR BASE	1.0000 PCS
45L 76 28 RN	pe bag for base/MANUAL	1.0000 PCS
45L 77 3	TRANSPARENT SHEET	73.0000 CM
45L 77500	BARCODE RIBBON	19.0000 CM
45L 77501	BARCODE RIBBON	0.5000 CM
45L 88500 11	OUT PE BAG	0.0098 PCS
45L 88500 12	OUT PE BAG	0.0150 PCS
45L 88607	PE BAG FOR MONITOR	1.0000 PCS
50L 500 1	CABLE TIE	2.0000 PCS
50L 600 2	HANDLE1	1.0000 PCS
50L 600 3	HANDLE2	1.0000 PCS
52L 1150 C	WHITE TAPE	85.0000 MM
52L 1185 22	ACER TYPE	12.0000 CM
52L 1186	SMALL TAPE	8.0000 CM
52L6020 3	PROTECT FILM	0.1000 PCS
79L L18 1 E	INVERTER BY EMAX	1.0000 PCS
80L L17 2 CH	ADAPTER VER	1.0000 PCS
85L 548503	SHIELD	1.0000 PCS
85L 574 1	SHIELD INVERTER	1.0000 PCS
89L1735GAB504	SIGNAL CABLE	1.0000 PCS
89L404C15N IS	POWER CORD	0.0000 PCS
89L404C15N YH	POWER CORD	1.0000 PCS
95L8014 6 14	HARNESS	1.0000 PCS
95L8018 30 4	HARNESS	1.0000 PCS
B1L1030 5128	SCREW	5.0000 PCS
B1L1030 8128	SCREW	4.0000 PCS
M1L 330 6128	SCREW	8.0000 PCS
M1L1030 10128	SCREW	4.0000 PCS
M1L1740 12128	SCREW	4.0000 PCS

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Q1L 340 12128	SCREW	6.0000 PCS
Q1L 340 16120	SCREW 4X16	4.0000 PCS
Q1L1830 10120	SCREW	2.0000 PCS
750LLM80E01	CHI MEI 18″PANEL	1.0000 PCS
705L880KB34 14	LCD ASS'Y	1.0000 PCS

CBPC880KMYAE	CONVERSION BOARD FOR	
AIC880KMYAE	MAIN BOARD FOR T880K*	1.0000 PCS
CN303 33L3802 5H	WAFER 5P RIGHT ANELE P	1.0000 PCS
CN302 33L3802 9H	WAFER 9P RIGHT ANELE P	1.0000 PCS
R319 33L8009 2	2 PIN MIN.JUMOER	1.0000 PCS
33L8010 2 L	2PIN SHUNT MINI JUMPER	1
CN200 33L8013 14 H	PLUG 14P 90	1.0000 PCS
CN603 33L801724A H	PIN HEADER 24P 2.0mm	1.0000 PCS
40L 457624 1A	CPU LABEL	1.0000 PCS
40L 45762412A	CBPC LABEL	1.0000 PCS
44L3231 8 A	EVA WASHER	1.0000 PCS
49L 51 1A	CLEANING	0.0500 ML
51L 500 1	WHITE GLUE	3.0000 G
51L6002 2	ACCELERANT	0.0000 ML
55L 100600 A	SOLDER WIRE	0.5000 G
55L 100603	SOLDER	9.1000 G
U302 56L1125137M22	W78E65 by Winbond	1.0000 PCS
C307 67L305L331 6	330UF +-20% 35V	1.0000 PCS
C309 67L305L331 6	330UF +-20% 35V	1.0000 PCS
C310 67L305L331 6	330UF +-20% 35V	1.0000 PCS
C312 67L305L331 6	330UF +-20% 35V	1.0000 PCS
C945 67L309L471 3	470UF+-20% 16V	1.0000 PCS
FB301 71L 55 28	FERRITE BEAD 7.62*5.08	1.0000 PCS
L906 73L 253124 L	CHOCK	1.0000 PCS
L905 73L 259 4	200UH +/-5%	1.0000 PCS
X300 93L 22 55 H	20MHZ	1.0000 PCS
U201 93L 22 57 H	50MHZ OSCIL	1.0000 PCS
J1 95L 900 28	HARNESS	1.0000 PCS

AIC880KMYAE	MAIN BOARD FOR T880K*	
55L 23520	IPA	0.0600 ML
55L 100600 A	SOLDER WIRE	0.5000 G
55L 100602	SOLDER	0.8500 G
U601 56L 561 5	NT7181F	1.0000 PCS
U602 56L 561 5	NT7181F	1.0000 PCS
U200 56L 562 12	gmZAN2	1.0000 PCS
U304 56L 563 1	LM2596S-5.0 SMT	1.0000 PCS
U305 56L 563 7	AIC1084-33CM	1.0000 PCS

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U202	56L 566 6		SI9953DY-T1	1.0000 PCS
U904	56L 585 4		AIC1117-33CY	1.0000 PCS
U905	56L 585 5		RT9164-25CG	1.0000 PCS
U401	56L 74F 14	P	N74F14D SMT	1.0000 PCS
U203	56L1133 16		24LC21A/SN	1.0000 PCS
U300	56L1133 33		M24C16-MN6T	1.0000 PCS
Q200	57L 417 4		PMBS3904/PHILIPS-SMT(0	1.0000 PCS
Q304	57L 417 4		PMBS3904/PHILIPS-SMT(0	1.0000 PCS
RP300	61L 125103	8	CHIP AR 8P4R 10KOHM +-	1.0000 PCS
RP301	61L 125472	8	CHIP AR 8P4R 4.7K OHM+	1.0000 PCS
JP301	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
L207	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R203	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R207	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R208	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R221	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R229	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R232	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R233	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R234	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R310	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R317	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R340	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R401	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R402	61L0603102		CHIPR 1K OHM +-5% 1/16W	1.0000 PCS
R403	61L0603472		CHIPR 4.7K OHM +-5% 1/16W	1.0000 PCS
R603	61L0603000		CHIPR 0OHM +-5% 1/16W	1.0000 PCS
R200	61L0603101		CHIPR 100 OHM +-5% 1/1	1.0000 PCS
R201	61L0603101		CHIPR 100 OHM +-5% 1/1	1.0000 PCS
R202	61L0603101		CHIPR 100 OHM +-5% 1/1	1.0000 PCS
R218	61L0603101		CHIPR 100 OHM +-5% 1/1	1.0000 PCS
R219	61L0603101		CHIPR 100 OHM +-5% 1/1	1.0000 PCS
R220	61L0603101		CHIPR 100 OHM +-5% 1/1	1.0000 PCS
R227	61L0603101		CHIPR 100 OHM +-5% 1/1	1.0000 PCS
R216	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R217	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R223	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R224	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R225	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R300	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R301	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R311	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R313	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R315	61L0603103		CHIPR 10K OHM +-5% 1/1	1.0000 PCS

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R326	61L0603103	CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R327	61L0603103	CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R328	61L0603103	CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R329	61L0603103	CHIPR 10K OHM +-5% 1/1	1.0000 PCS
R333	61L0603202	CHIPR 2K OHM+-5% 1/16W	1.0000 PCS
R213	61L0603222	CHIPR 2.2K OHM+-5% 1/1	1.0000 PCS
R214	61L0603222	CHIPR 2.2K OHM+-5% 1/1	1.0000 PCS
R303	61L0603472	CHIPR 4.7K OHM +-5% 1/	1.0000 PCS
R204	61L0603750	CHIPR 75 OHM+-5% 1/16W	1.0000 PCS
R205	61L0603750	CHIPR 75 OHM+-5% 1/16W	1.0000 PCS
R206	61L0603750	CHIPR 75 OHM+-5% 1/16W	1.0000 PCS
JP202	61L1206000	CHIPR 0 OHM +-5% 1/8W	1.0000 PCS
JP303	61L1206000	CHIPR 0 OHM +-5% 1/8W	1.0000 PCS
L204	61L1206000	CHIPR 0 OHM +-5% 1/8W	1.0000 PCS
L205	61L1206000	CHIPR 0 OHM +-5% 1/8W	1.0000 PCS
C948	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C949	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C950	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C951	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C952	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C953	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C954	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C955	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C956	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C957	65L0603102 32	CHIP 1000PF 50V X7R	1.0000 PCS
C229	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C230	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C231	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C232	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C233	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C234	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C251	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C606	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C608	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C614	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C616	65L0603103 32	0.01UF+-10% 50V X7R	1.0000 PCS
C201	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C202	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C204	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C205	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C207	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C208	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C209	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C210	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS

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C211	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C212	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C213	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C215	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C217	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C218	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C219	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C220	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C221	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C222	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C223	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C225	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C226	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C227	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C228	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C237	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C244	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C245	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C246	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C300	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C304	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C308	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C311	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C405	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C601	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C602	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C604	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C618	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C619	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C939	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C940	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C941	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C942	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C944	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C946	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C947	65L0603104 12	0.1UF +-10% 16V X7R	1.0000 PCS
C303	65L0603220 31	CHIP 22PF 50V NPO	1.0000 PCS
C306	65L0603220 31	CHIP 22PF 50V NPO	1.0000 PCS
C250	65L0603330 31	33PF+-5% 50V NPO	1.0000 PCS
CP301	65L600M102 8T	1000PF+-20% 50V 8P X7R	1.0000 PCS
CP302	65L600M102 8T	1000PF+-20% 50V 8P X7R	1.0000 PCS
C605	67L 312100 3	SMD 10uf +-20% 16V	1.0000 PCS
C607	67L 312100 3	SMD 10uf +-20% 16V	1.0000 PCS
C613	67L 312100 3	SMD 10uf +-20% 16V	1.0000 PCS

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C615	67L 312100	3	SMD 10uf +-20% 16V	1.0000 PCS
C620	67L 312100	3	SMD 10uf +-20% 16V	1.0000 PCS
C200	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C203	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C206	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C214	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C216	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C224	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C305	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C401	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C403	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C603	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C927	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C928	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C929	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C930	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C943	67L 312101	3	SMD 100UF +-20% 16V	1.0000 PCS
C313	67L 312220	3	SMD 22UF +-20% 16V	1.0000 PCS
C314	67L 312220	3	SMD 22UF +-20% 16V	1.0000 PCS
L200	71L 57G601		TI3216JIG601-T17A	1.0000 PCS
L201	71L 57G601		TI3216JIG601-T17A	1.0000 PCS
L202	71L 57G601		TI3216JIG601-T17A	1.0000 PCS
L203	71L 57G601		TI3216JIG601-T17A	1.0000 PCS
L300	71L 57G601		TI3216JIG601-T17A	1.0000 PCS
L900	71L 57G601		TI3216JIG601-T17A	1.0000 PCS
L601	71L 59B121		TB160808B12 SMD	0.0000 PCS
L602	71L 59B121		TB160808B12 SMD	0.0000 PCS
L603	71L 59B121		TB160808B12 SMD	0.0000 PCS
L604	71L 59B121		TB160808B12 SMD	0.0000 PCS
R215	71L 59B121		TB160808B12 SMD	0.0000 PCS
R237	71L 59B121		TB160808B12 SMD	0.0000 PCS
R238	71L 59B121		TB160808B12 SMD	0.0000 PCS
L601	71L 59C121	B	FCM1608C-121T03 SMD	1.0000 PCS
L602	71L 59C121	B	FCM1608C-121T03 SMD	1.0000 PCS
L603	71L 59C121	B	FCM1608C-121T03 SMD	1.0000 PCS
L604	71L 59C121	B	FCM1608C-121T03 SMD	1.0000 PCS
R215	71L 59C121	B	FCM1608C-121T03 SMD	1.0000 PCS
R237	71L 59C121	B	FCM1608C-121T03 SMD	1.0000 PCS
R238	71L 59C121	B	FCM1608C-121T03 SMD	1.0000 PCS
MTG U30	87L 202 44		PLCC SMT CONN PD41C-44	1.0000 PCS
D200	93L 39146		LL5232B SMT	0.0000 PCS
D201	93L 39146		LL5232B SMT	0.0000 PCS
D208	93L 39146		LL5232B SMT	0.0000 PCS
D209	93L 39146		LL5232B SMT	0.0000 PCS

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D210	93L	39146	LL5232B SMT	0.0000 PCS
D200	93L	39147	TZMC5V6-GS08	1.0000 PCS
D201	93L	39147	TZMC5V6-GS08	1.0000 PCS
D208	93L	39147	TZMC5V6-GS08	1.0000 PCS
D209	93L	39147	TZMC5V6-GS08	1.0000 PCS
D210	93L	39147	TZMC5V6-GS08	1.0000 PCS
D200	93L	39149	MLL5232B BY FULL POWER	0.0000 PCS
D201	93L	39149	MLL5232B BY FULL POWER	0.0000 PCS
D208	93L	39149	MLL5232B BY FULL POWER	0.0000 PCS
D209	93L	39149	MLL5232B BY FULL POWER	0.0000 PCS
D210	93L	39149	MLL5232B BY FULL POWER	0.0000 PCS
D300	93L	60211	SMB340 BY FULL POWER	1.0000 PCS
D300	93L	60212	SMB340 SMT	0.0000 PCS
D303	93L	60219	BAT54C SMT	0.0000 PCS
D303	93L	60220	BAT54C-GS08	0.0000 PCS
D303	93L	60230	BAT54C(L43)	1.0000 PCS
D202	93L	64 32	LL4148 SMD	0.0000 PCS
D203	93L	64 32	LL4148 SMD	0.0000 PCS
D204	93L	64 32	LL4148 SMD	0.0000 PCS
D205	93L	64 32	LL4148 SMD	0.0000 PCS
D206	93L	64 32	LL4148 SMD	0.0000 PCS
D207	93L	64 32	LL4148 SMD	0.0000 PCS
D301	93L	64 32	LL4148 SMD	0.0000 PCS
D302	93L	64 32	LL4148 SMD	0.0000 PCS
D202	93L	6432U	MLL4148 SMD	0.0000 PCS
D203	93L	6432U	MLL4148 SMD	0.0000 PCS
D204	93L	6432U	MLL4148 SMD	0.0000 PCS
D205	93L	6432U	MLL4148 SMD	0.0000 PCS
D206	93L	6432U	MLL4148 SMD	0.0000 PCS
D207	93L	6432U	MLL4148 SMD	0.0000 PCS
D301	93L	6432U	MLL4148 SMD	0.0000 PCS
D302	93L	6432U	MLL4148 SMD	0.0000 PCS
D202	93L	6432V	LL4148-GS08	1.0000 PCS
D203	93L	6432V	LL4148-GS08	1.0000 PCS
D204	93L	6432V	LL4148-GS08	1.0000 PCS
D205	93L	6432V	LL4148-GS08	1.0000 PCS
D206	93L	6432V	LL4148-GS08	1.0000 PCS
D207	93L	6432V	LL4148-GS08	1.0000 PCS
D301	93L	6432V	LL4148-GS08	1.0000 PCS
D302	93L	6432V	LL4148-GS08	1.0000 PCS
715L 820	2	2	TF-1780 LCD MAIN BOARD	1.0000 PCS
DCPC780A5			DC JACK BOARD FOR T780	
JP2	88L	3041CE	DC JACK	1.0000 PCS

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C71 67L 305331 6	330UF +-20% 35V	1.0000 PCS
89L 171 28	DC POWER CORD	1.0000 PCS
715L 906 1	DC POWER BOARD	1.0000 PCS

KEPC880KY1	KEY BOARD FOR T880K*I	
AIK880KY1	KEY BOARD FOR T880K*II	1.0000 PCS
J7 33L3252 3 H	WAFER 3P 3.96MM 90	1.0000 PCS
SW101 77L 602 1 CJ	TACT SWITCH TSVB-2	1.0000 PCS
SW102 77L 602 1 CJ	TACT SWITCH TSVB-2	1.0000 PCS
SW103 77L 602 1 CJ	TACT SWITCH TSVB-2	1.0000 PCS
SW104 77L 602 1 CJ	TACT SWITCH TSVB-2	1.0000 PCS
SW105 77L 602 1 CJ	TACT SWITCH TSVB-2	1.0000 PCS
LED1 81L 12 1C GP	LED 3mm	1.0000 PCS
JP2 88L 304 1S	DC POWER JACK	0.0000 PCS
JP2 88L 3041CE	DC JACK	1.0000 PCS
95L8014 9 9	HARNESS	1.0000 PCS

AIK880KY1	KEY BOARD FOR T880K*I	
715L 912 1	18" LCD Acer KEY BRD	1.0000 PCS
J102 95L 90 23	TIN COATED	0.0000 PCS
J101 61L 60210252T	CFR 1K OHM+-5% 1/6W	1.0000 PCS
R101 61L 60210352T	CFR 10K OHM+-5% 1/6W	1.0000 PCS
R102 61L 60210352T	CFR 10K OHM+-5% 1/6W	1.0000 PCS
R103 61L 60210352T	CFR 10K OHM+-5% 1/6W	1.0000 PCS
R104 61L 60210352T	CFR 10K OHM+-5% 1/6W	1.0000 PCS
R105 61L 60210352T	CFR 10K OHM+-5% 1/6W	1.0000 PCS
R106 61L 60210352T	CFR 10K OHM+-5% 1/6W	1.0000 PCS
R107 61L 60210352T	CFR 10K OHM+-5% 1/6W	1.0000 PCS
R108 61L 60222152T	CFR 220 OHM +-5% 1/6W	1.0000 PCS
C101 65L 450104 7T	0.1UF +80-20% 50V Y5V	1.0000 PCS
C101 65L 4501047TV	0.1UF +80-20% 50V Y5V	0.0000 PCS
Q101 57L 419 PP T	2PC945P	1.0000 PCS
Q102 57L 419 PP T	2PC945P	1.0000 PCS

705L880KB34 14	LCD ASS'Y	
Q1L1030 12120	SCREW	4.0000 PCS
12L 387500	RUBBER FOOT	0.0000 PCS
34L 893 CA B	SUPPORT FORNT	1.0000 PCS
34L 894 CA B	SUPPORT BACK	1.0000 PCS
37L 443 1	LCD HINGE	1.0000 PCS
Q1L1030 12128	SCREW	4.0000 PCS
Q1L1830 10120	SCREW	2.0000 PCS

BILL OF MATERIAL

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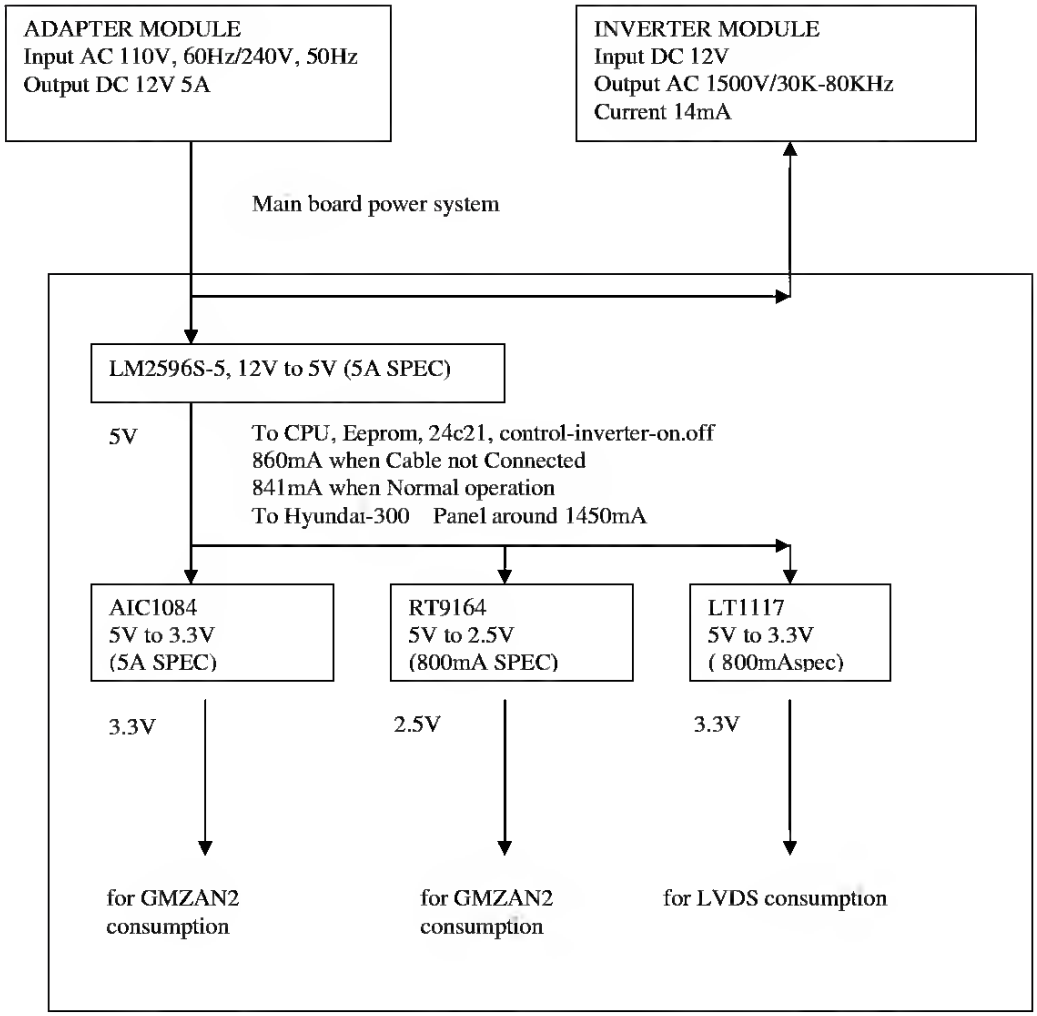
*Red marked part is important component

9. POWER SYSTEM AND CONSUMPTION CURRENT



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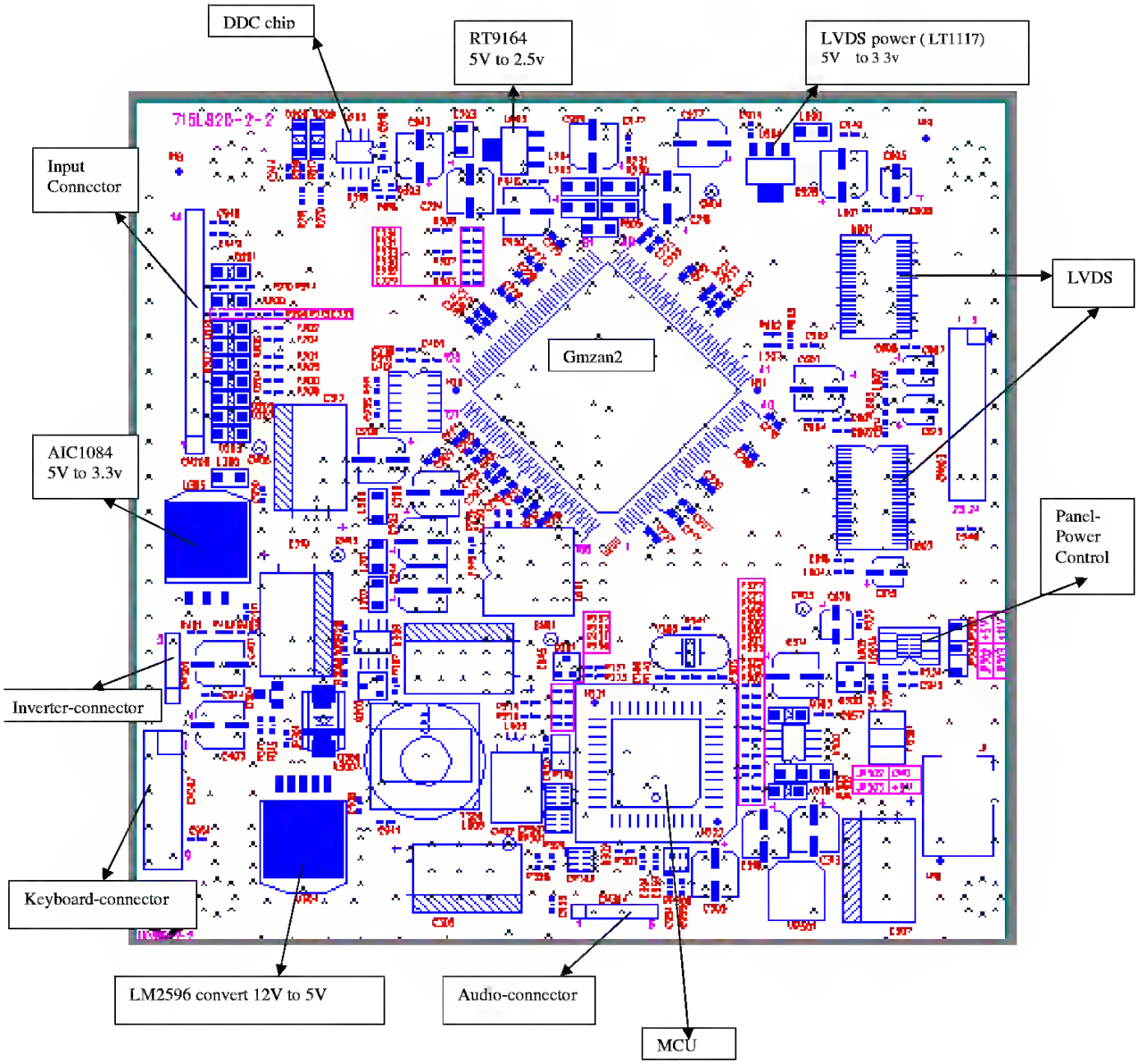
10. PCB LAYOUT

MAIN PCB LAYOUT



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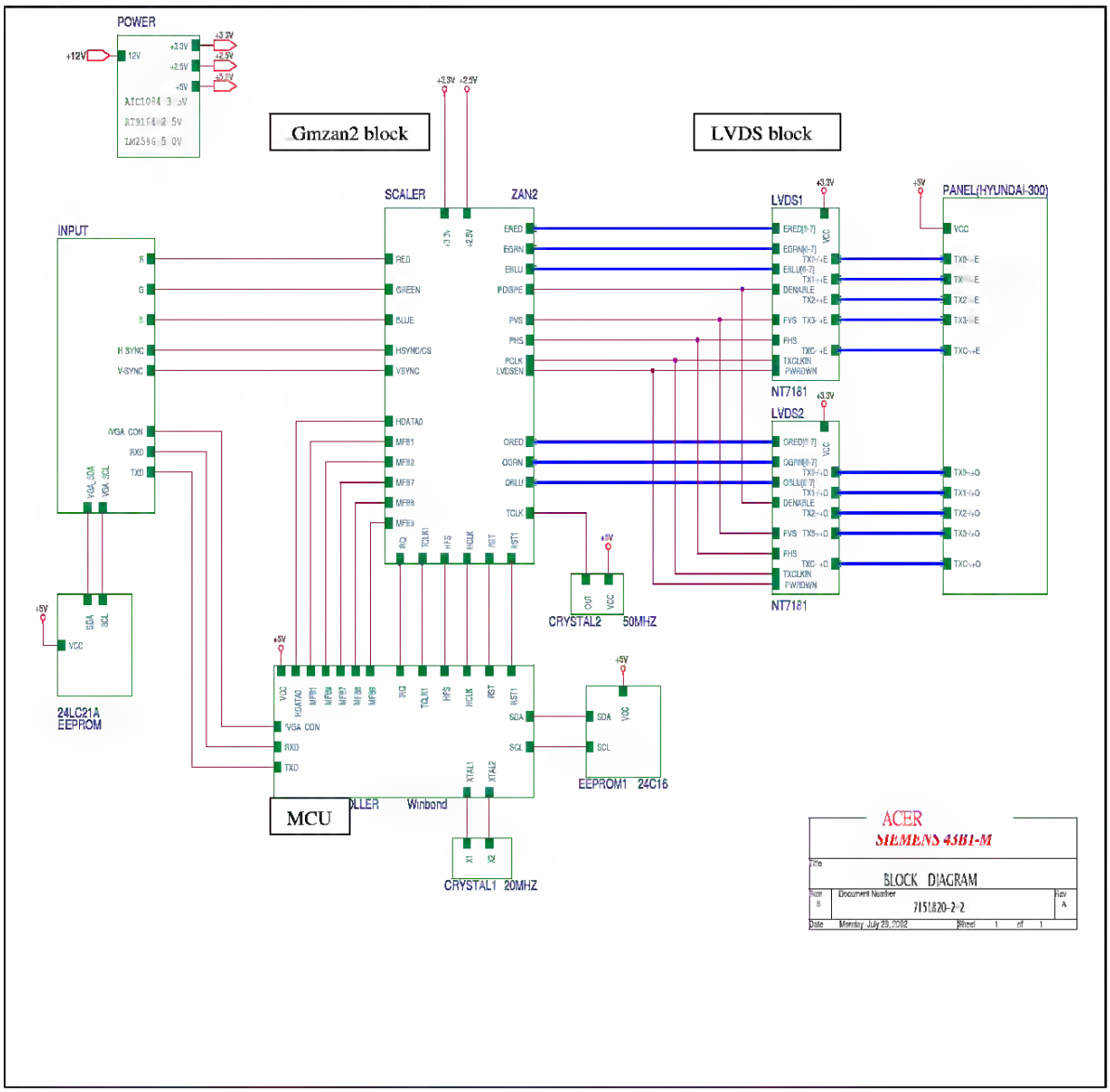
11. SCHEMATIC DIAGRAM

TOP-LEVEL FLOW



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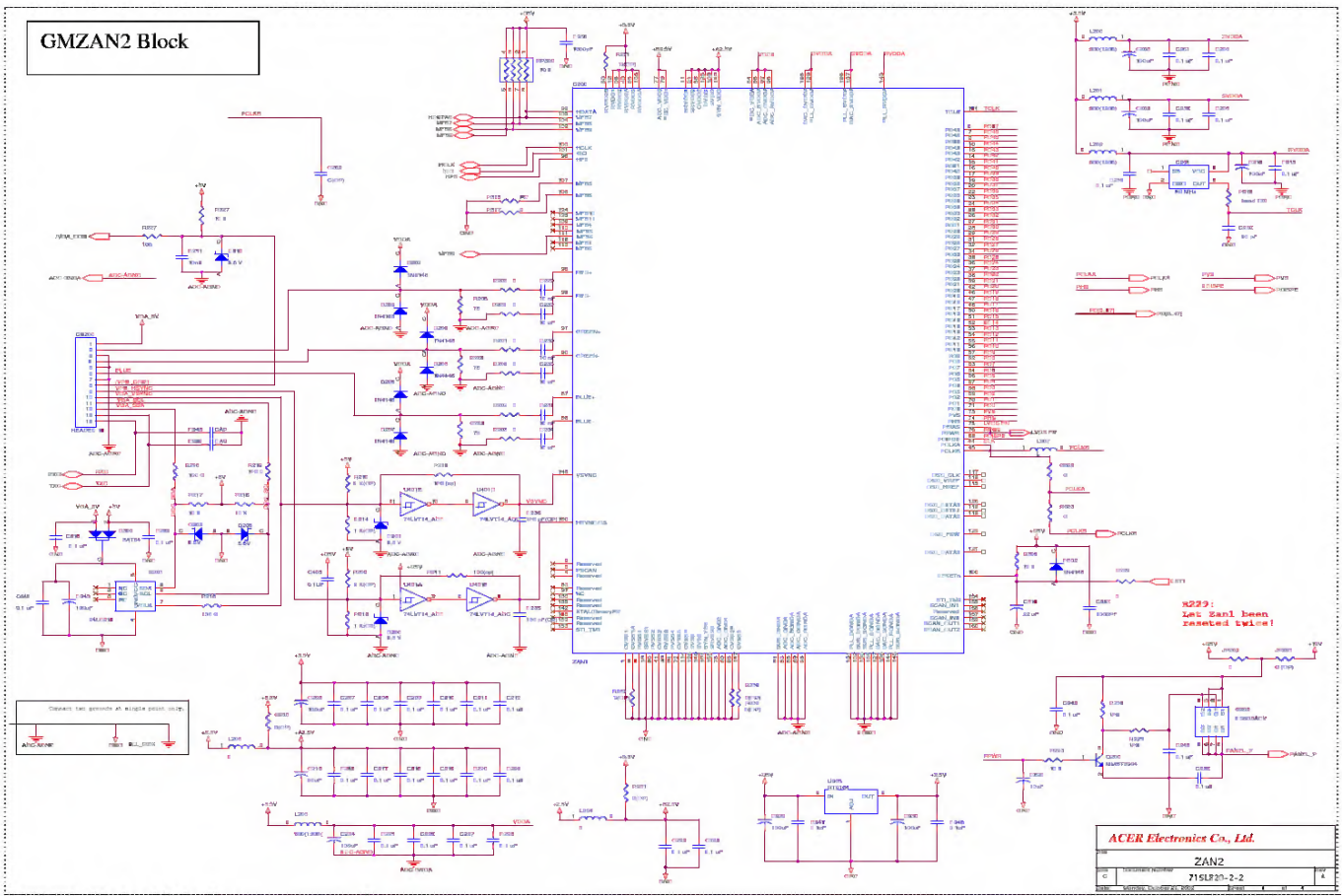

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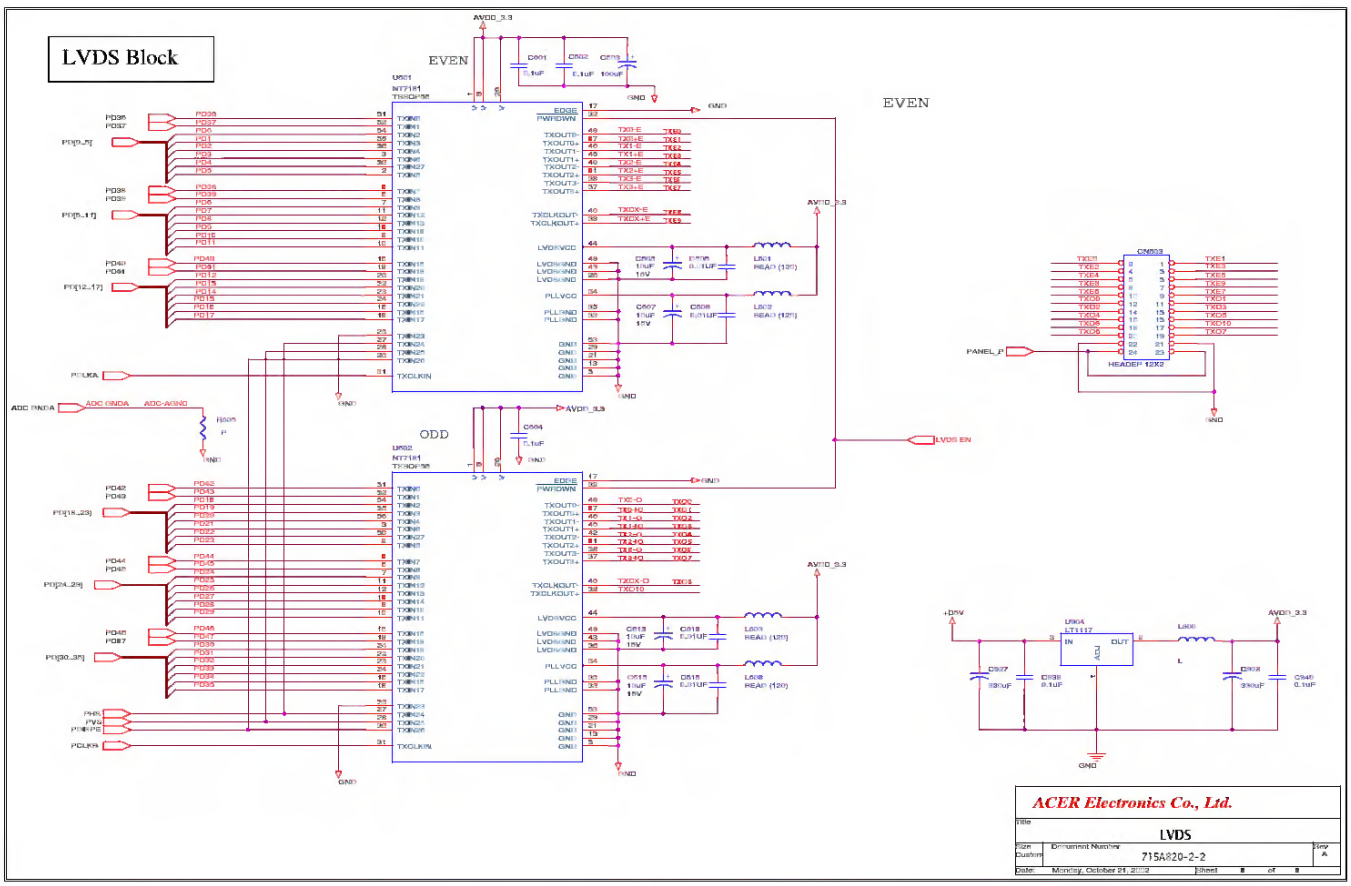

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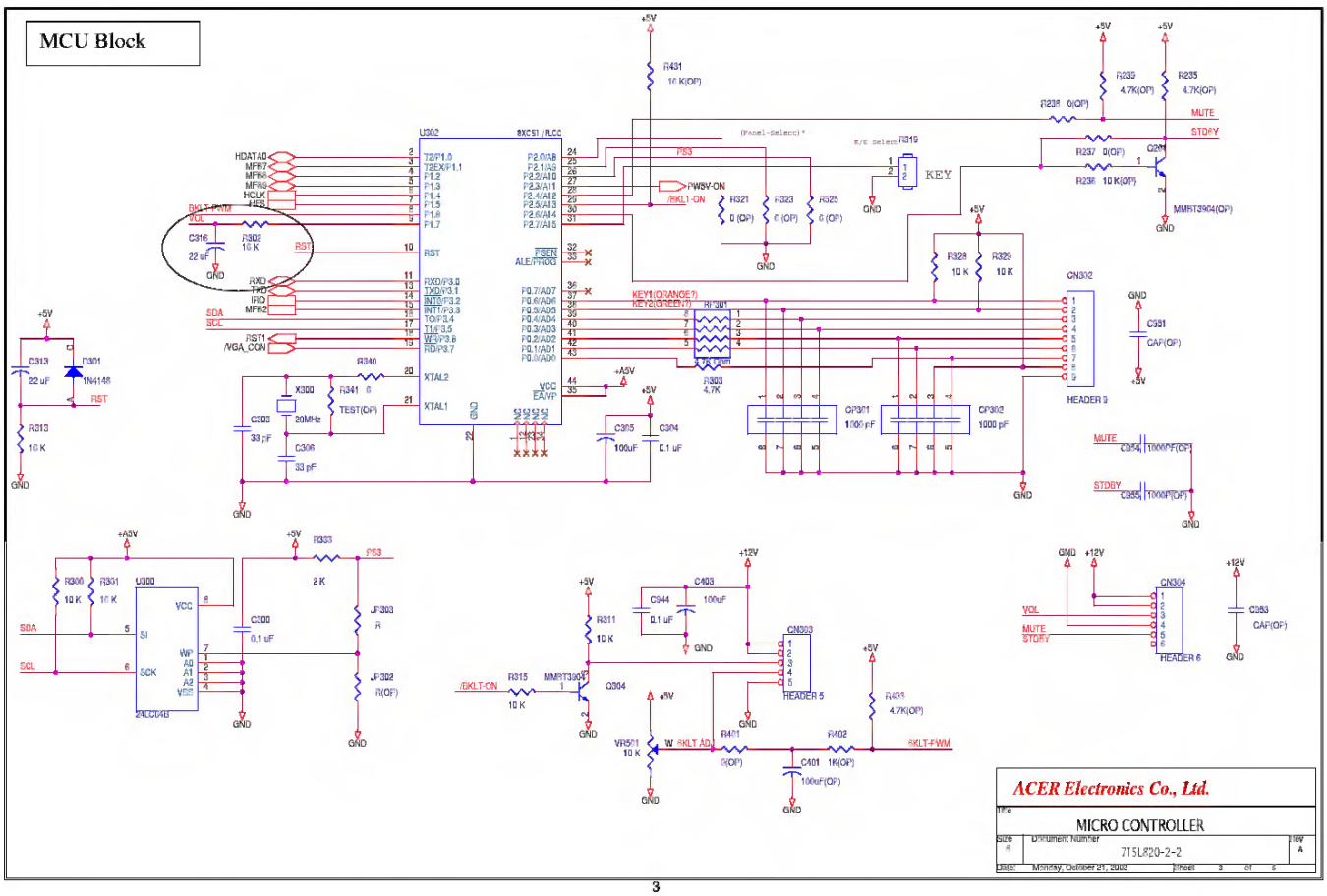

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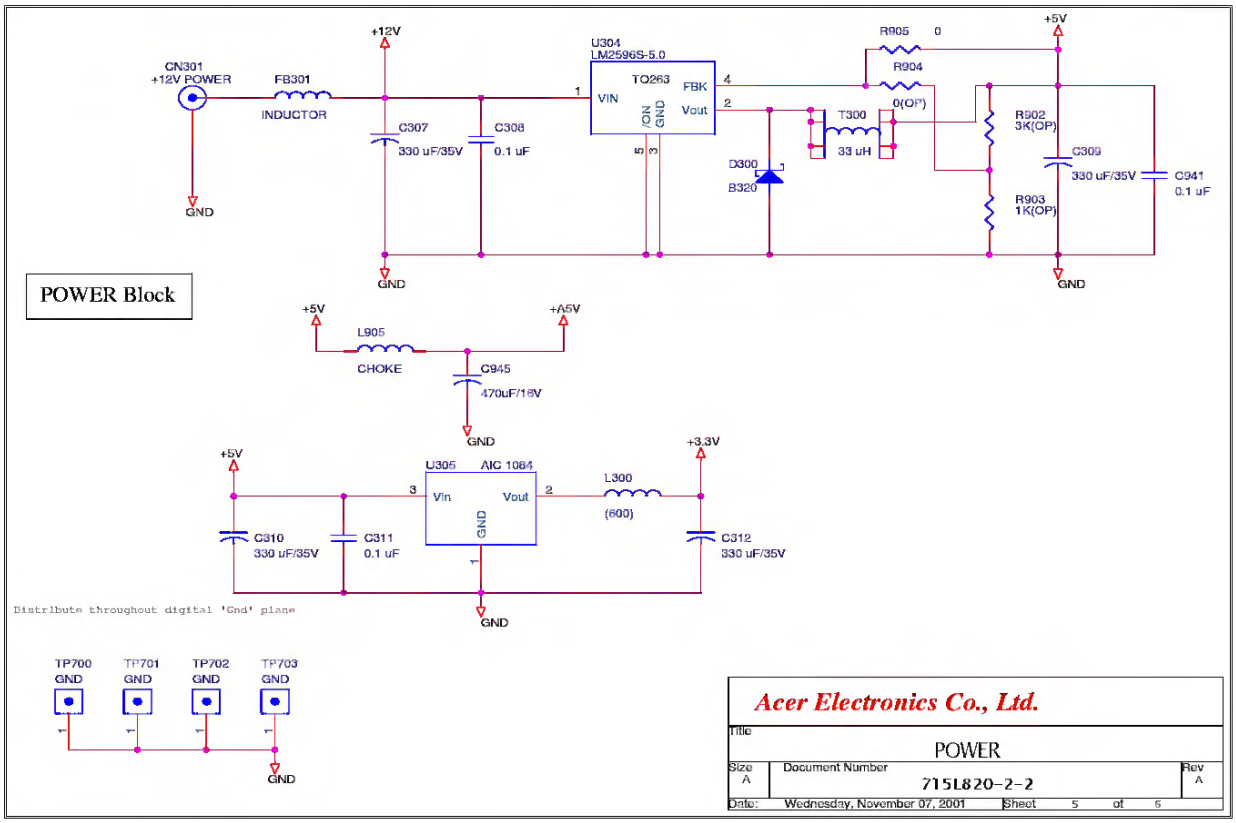

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